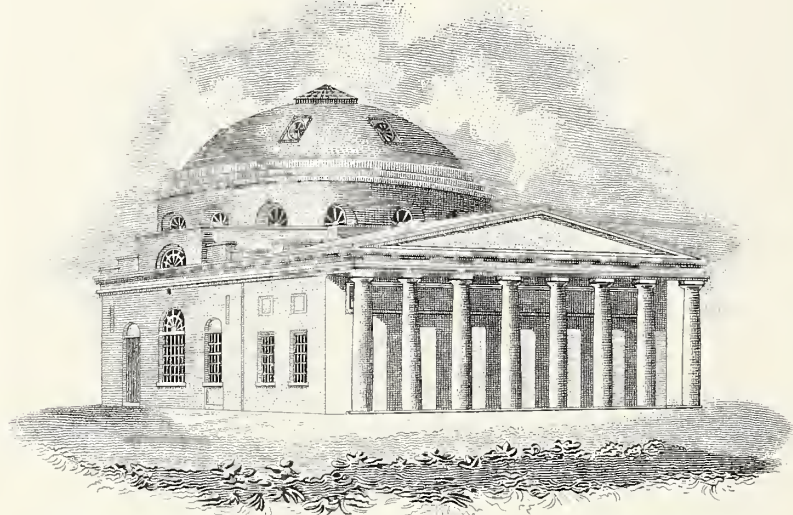


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No. 1

Medical Aspect of Disease of the Thyroid Gland

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We believe that in order to discuss the medical aspects of thyroid disease, one should know something about the history of the development of knowledge of thyroid activities.

The Greeks and Romans had knowledge of goitre.

Pliny said that one need not be surprised at seeing goitre among the inhabitants of the Alps.

William Wharton, in a work published in London in 1656, gave a very excellent description of the thyroid gland, in fact gave it its name from the Greek Dureis meaning shield and eidos meaning like. He recognized its shape and firm consistency, and that it was of much richer blood supply than other glands. He believed that its chief use was to receive by the recurrent nerves, certain humors, and to re-conduct them via lymphatics to the veins.

This germ that there is an internal secretion, was apparently present in the 17th century, as Borden, in 1776, thought that not only every gland, but every organ of the body gives a specific secretion to the blood stream, and upon these secretions the physiology of the body depends.

Dr. Caleb H. Parry in 1786, gave the first clear description of exophthalmic goitre, as we

recognize it. The only important manifestations that he left out, as we know the disease today, are tremor, warmth, and increased appetite.

Robert Graves of Dublin and Base Dow of Germany independently made the observations in 1835 and 1840, respectively, of the severe beating of heart and other symptoms as we know them.

Later, in 1864, Von Grafe described the lid lag.

Moebius, in 1886, added his sign to the picture, i. e., insufficiency of convergence.

It was really through the knowledge of underfunction of the thyroid gland, rather than over function, as in exophthalmic goitre, that the function and physiology of the thyroid gland began to be understood.

In 1850, Carling reported to the Royal Medical and Chirurgical Society of London, two cases of sporadic cretinism, both of which came to autopsy. Both showed typical characteristics of Cretinism, including swellings at outer sides of neck, external to the sternocleido mastoid muscles. At autopsy, these swellings were found to be fatty, and in neither case *could any trace of the thyroid be found.*

C. Hilton Fagge, in 1871, contributed the most illuminating chapter to the knowledge of Hypothyroidism. He reported four cases of sporadic cretinism, and called attention to the similarity to endemic cretinism, except the total absence of the thyroid gland. He was the first to recognize that the absence of thyroid secretion may be acquired, and wondered what an adult would be like who for some reason, had not the power in thyroid gland to secrete its substance. He made a description of what the adult would look like, and what symptoms he would present and described accurately a case of Myxedema, although he had never seen one.

In 1874, Sir William Gull gave the first description of Myxedema.

As to the function of the thyroid, it has aroused the thoughts of investigators for centuries. This was even suspected by Wharton as spoken of in 1656.

J. J. Schiff of Geneva, in 1859, was the first to show that undoubted hypothyroid symptoms developed in animals by the removal of the thyroid gland.

In Switzerland, the symptoms of Myxedema were described, following extirpation of the thyroid in humans.

In 1884, Schiff found that he could remove the thyroid from rats without a single death, whereas cats and dogs rapidly died. He found that if he first introduced thyroid tissue from animals of the same species into the abdomens of animals operated upon, there was practically no danger in removal of the thyroid.

Hence we see the first introduction of substitution therapy.

MacKenzie and Fox in 1892 independently found that feeding of thyroid to Myxedema patients gave very satisfactory results.

As to the nature of thyroid secretion, it was Baumann, who in 1896, discovered that iodine is the normal constituent of the thyroid gland, although it had been found as early as 1820, that the administration of iodine helped goitre and would diminish the size of the gland.

Marine, in 1907, demonstrated that iodine is necessary for normal thyroid function and that endemic goitre is really a deficiency disease, i. e., deficiency in iodine.

Finally, Kendall in 1915 made the very great discovery in the isolation from the thyroid of a compound containing 60% iodine and having

apparently the full physiological activity of the whole thyroid gland and named this substance Thyroxin.

Moebius noted certain similarities and striking dissimilarities in the two diseases, Myxedema and Hyperthyroidism, and made the very wise observation that of the original cause of dysfunction of the thyroid nothing is known. Nor has there been anything added since his time, so that we understand it no better than he.

Plummer contributed a great deal to our understanding of thyroid disease in 1913 when he showed that there were two distinct types of toxic goitre, namely exophthalmic goitre (hyperplasia) and the so called toxic adenoma.

Plummer, in 1923, also showed this specific detoxifying action of iodine in large doses.

It has been clearly shown that the increase of thyroxin in the circulating blood will increase the basal metabolism of that individual, and conversely the absence of thyroxin will lower the metabolic rate.

The thyroid gland contains within its capsule parenchymal cells, colloid, stroma, blood, lymph and tissue fluid.

Hence, any enlargement or goitre may be due to:

1. Increase of blood or lymph content, as edema, congestion or hematoma.
2. Increase in total volume of parenchymal cells, glandular hypertrophy or hyperplasia.
3. Increase of colloid stored in follicles.
4. Increase in quantity of stroma, interstitial hyperplasia.
5. Cyst formation or new growth.

Hence, the best classifications of thyroid disease we can arrive at today, is to regard the increase of one or all of the above factors and the functions.

I. Diffuse colloid goitre:

Endemic.

Sporadic.

II. Adenomatous goitre:

With normal function.

With hyper function.

III. Exophthalmic goitre:

IV. Cretinism:

Endemic.

Sporadic.

- V. Myxedema.
- VI. Thyroiditis.
- VII. Malignant tumors of the thyroid gland.

We wish to discuss first deficiency diseases of the thyroid gland, the extreme of which is cretinism in the young, and myxedema in the adult.

The endemic cretinism occurs in goiterous districts, where the parents have suffered from goitre, this goitre being brought about by lack of iodine in the parents, this in turn is imparted to the child, i. e., there is an inherited deficiency.

It has been found that upon administering iodine to goiterous animals giving birth to offspring, the offspring will be normal, while if they are not given the iodine, the offspring will be cretins from birth.

The sporadic cretin begins at about 3 months, and so far as is known, no adequate cause has been found to explain this. There are others that may begin in very early childhood and the cretin maintains all the characteristics of a child of that age plus the swelling of soft parts, thick tongue, puffy face, dry skin, coarse hair, sluggish mentality, etc.

The myxedematous patient is the same thing, only in the adult, and hence we have the adult development as to large bones, muscles, etc.

We do not wish to discuss the symptoms of these two extremes of hypofunction of the thyroid gland, as they are too well known to all of us.

We do want to bring out the fact that the metabolism is extremely low in these two conditions, and we do get all degrees of lowered metabolism, according to how much the activity of the gland is diminished in this process.

It is in the class called hypothyroid patients who have a partially depressed function of the thyroid gland that the greater problem is bound to arise.

These patients do not present *all* the symptoms of the extreme or myxedematous class, but a few of them. They may be easily fatigued, especially susceptible to cold, being well nourished, or even obese when they eat very little, the face may be slightly puffy, slight non-pitting edema, loss of sexual appetite and frigidity. The special senses of these patients may be affected a great deal, especially the eyes.

These cases being very difficult to diagnose, the basal metabolic rate becomes very useful. This test may have to be repeated several times in order to arrive at a sane conclusion, because we do not know what the normal rate for that particular individual may be. In fact, many of these cases will have to take thyroid gland cautiously, under supervision, and if there is a distinct improvement in their case, we may be reasonably sure that they are suffering from a mild grade of hypothyroidism.

We have already hinted at the treatment of deficiency disease of the thyroid gland that is the substitution therapy.

Osler said in the treatment of myxedema by the giving of thyroid, — “Not the magic wand of Prospero or the brave kiss of the daughter of Hippocrates ever affected such a change.”

We wish to point out, however, that in giving thyroid as a substitution therapy we are dealing with a two-edged sword, i. e., we can do distinct harm by giving too much, and not much good if we give too little. Hence the patient receiving it, should be under constant supervision, and in the borderline cases, begin with small doses (we have no way of knowing how much thyroid will be required in an individual case) and work up to the right amount to produce the required result. The best guide is the improvement of the patient, and watching the pulse, blood pressure and weight to guard against over dosing.

Diffuse colloid goitre is perhaps better understood than any other form of thyroid disease. This is both endemic and sporadic.

The terms adolescent goitre, simple goitre, and colloid goitre are synonymous.

The appearance of simple goitre occurs more in females, the percentage being from 3 to 8 to 1 and is due to over production of colloid material in the gland. It is more apt to make its appearance at the time of greater stress in life, namely adolescence, pregnancy, lactation, menopause, and with severe infections and intoxications.

As stated for Cretinism there are certain localities in the world where the goitre is endemic, that is, goiterous districts, the best known in this country being the upper Great Lakes region.

The endemic form of simple goitre has been well proven to be due to a deficiency of iodine.

The cause of the sporadic form still remains unknown. As has been pointed out, the presence of goitre in a family for several generations, will eventually lead to cretinism.

Goitre is also endemic in many of the very high mountain districts as the Alps and Himalayas. Attempts have been made to prevent goitre in these districts by impregnating water with iodine, but this has proven unsatisfactory.

Iodized salt also has been used but it has been found dangerous in that an overdose is apt to produce exophthalmic goiter where an adenoma is present. The best method would seem to be to give stated doses of iodine during adolescence, pregnancy, lactation, etc.

The administration of 10 gm. of iodine per week in school children will prevent the appearance of goitre according to work of Marine and Kimball.

The course of the simple goitre is to become adenomatous and will produce cystic degeneration. Practically all of them are adenomatous and cystic if they have persisted from adolescence to the age of 21.

There are no symptoms in the simple goitre, unless it has persisted for a long time, when as we have said, it becomes adenomatous and finally is apt to become malignant or an exophthalmic goitre develop. The basal metabolic rate is not affected to any great degree, but is more apt to be a trifle below normal.

As to treatment, iodine administration will at times, if given early, cause them to diminish in size and they may disappear, but usually they persist, because the colloid always remains. However, by giving iodine carefully, there will be no disturbance in the *function* of the gland. The cautious use of thyroid substance has been used with success in some cases.

Thyroiditis is usually a complication of some acute infection, so that the medical treatment is largely the management of the infection, which is responsible.

Of course malignancy of the thyroid is a purely surgical problem. Probably the most intriguing diseases known are exophthalmic goitre and toxic adenoma.

The things that we know about exophthalmic goitre are that:

(1) The gland moderately or quite perceptibly enlarges, and this is a hyperplasia usually of the whole gland.

(2) That with this, there is an acceleration of the heart beat and there may be a fibrillation of the heart.

(3) There is usually an associated exophthalmos.

(4) There is an increased appetite and loss of weight in spite of it.

(5) Tremor of fingers, sometimes of the whole body.

(6) Sensitivity to heat and moisture to skin.

(7) Marked nervousness.

(8) That the disease has remissions, i. e., it tends to get better at times and even to get well.

(9) That due to the work of Plummer, large doses of iodine will bring about a remission lasting a longer or shorter time.

(10) That the basal metabolic rate is markedly increased.

(11) That cholesterol of blood decreased.

The thing we do not know, and probably the most important of all is the *cause* of an exophthalmic goitre. We are inclined to believe that if this is ever discovered, the whole scheme of our treatment will change. At the present time we must treat it empirically whether it be medical or surgical, in order to overcome the evident over activity of the gland.

The best recognized forms of medical treatment are:

(1) X-ray.

(2) Iodine.

(3) Forshiemer treatment with quinine hydrobromide and at times, ergotin with it. The value of this latter treatment is open to question, as the patients are treated for a long time, while they are kept at rest. As has been hinted at, the disease tends to have remissions anyway, and rest enhances this.

(4) Thiouracil, this drug has been used only during the last few years. We have had no experience with it. According to our reading, Thiouracil is a fairly toxic drug. J. L. Gabrilove, M. J. Kert, L. J. Sopper of New York, found that in the treatment of 54 cases of thyroid disease, that 31% had toxic manifestations of some sort.

Because of the frequency and severity of toxic reactions, it was their feeling that

Thiouracil should be used under three circumstances alone.

(1) In preparations of iodine fast patients for operation.

(2) In older individuals with hyperthyroidism, in whom for one reason or another operation is fraught with great hazard.

(3) In patients with recurrent hyperthyroidism, who have been operated upon twice or more.

In children who have not reached a full development of their bones, it is probably better to treat them medically because if they should have too much thyroid removed, their growth would be greatly retarded.

It is generally conceded that the best treatment today is subtotal thyroidectomy under a remission brought about by the use of iodine.

As to adenomatous goitre, one of the chief questions is, whether or not it is toxic. The symptoms of toxicity are a great deal like those of exophthalmic goitre, although it is apt to develop much slower, and we do not get exophthalmus so frequently.

We do not know how one can differentiate between a toxic adenoma and exophthalmic goitre when we have small adenoma which we can feel, as they both cause rapid heart, tremors, loss of flesh, and marked elevation of the metabolic rate. Fortunately the treatment of this condition is the same as exophthalmic goitre under a remission with iodine medication.

Another question to arise, in an adenoma of the thyroid gland with no symptoms of activity, is whether or not it is best to advise its removal or to keep it under observation. We *do* know that many of them go through life with no trouble, but it really seems to us that it is better judgment to advise surgical removal. First, because 90% of the malignancies of the thyroid, develop from adenomas, and second, they fre-

quently become toxic, and surgery is certainly done with more risk in this condition.

Adenomas should not be treated with iodine, because such treatment will be quite sure to bring on toxicosis.

CONCLUSIONS

(1) It is amazing how much knowledge of the function of the thyroid gland was gained by keen clinical judgment alone.

(2) That the treatment and the judgment of results accomplished, have been greatly advanced by the knowledge of basal metabolic rate determination.

(3) That there seems to be a strange interrelation between hyperfunctioning and hypofunctioning and any enlargement of the gland. Dysfunction seems to be a term covering all.

(4) That the discovery by Plummer, that iodine in large doses would bring about a remission, so that sub-total thyroidectomy could be done with practically no danger, is one of the greatest boons to medicine.

(5) That we do not know the *cause* of dysfunction of the thyroid gland, and that when we do, our whole concept, especially as to treatment, may change.

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In a ten-year tuberculin-testing program in rural and town schools in four counties in Minnesota the percentage of reactors has fallen from 14.1% to 6.75%. The decrease is attributed to a careful follow-up of all positive reactors, with an intensive search for

the source of the infection. Contact with open cases of tuberculosis was broken by hospitalization of the case or placing the children in a home free from tuberculosis. All teachers and school personnel were included in the plan.

Caesarean Section as Adapted to the Physician

PAUL A. MILLINGTON, M. D., Camden, Maine

It is often confusing to a person doing general practice in a small community to read articles written by men in large centers where each branch of medicine is practiced by a specialist in that field, and sometimes it is amusing to him to imagine that procedure being carried out in his community. In the field of obstetric difficulties, for instance, one is advised to follow procedures which would be dangerous in the hands of one not as well trained in the subject such as a person who does only that specialty. Unfortunately these difficulties arise in the practice of the general practitioner as well as in that of the specialist and he must meet them in some way which will be best for all concerned.

A frequent answer is, of course, that all deliveries should be performed by obstetricians, and one sees an occasional article which suggests that utopian plan. Such articles, however, are written by visionaries who forget that women are as likely to choose their physician by the way he combs his hair as they are by the finished manner in which he can apply forceps to an aftercoming head. The fact remains that in small communities a very large percentage of deliveries will always be performed by men doing general practice, not only for personal reasons but for the very real reason that a specialist would starve if he tried to support himself by an obstetric practice in most small towns, and of course pregnancy is not a condition which is adapted to travelling any great distance to a doctor. There are enough babies born in cars as it is.

It must be agreed that the general practitioner does well enough with most of his deliveries, and if he does not he finds his obstetric practice limited, either from his own choice or that of his patients. It would, of course, appear on the surface that a person doing obstetrics at all should take the time to receive the most advanced training possible but opportunities for receiving expert instruction and practice in obstetric difficulties are very limited, due to the limited amount of such cases. If a gen-

eral practitioner tries to become a specialist in one subject he finds that the many other branches of his knowledge are neglected and his practice loses its proper balance. If on the other hand a physician makes a conscientious effort at keeping abreast of things with a moderate amount of reading, and exercises due diligence in caring for each case, these unusual cases which make him wonder why he didn't become a plumber instead of a doctor are really rare enough to be no more annoying than other troubles in his practice.

These too complicated cases probably constitute about five per cent of cases, although their tendency to occur in groups makes it sometimes seem as though they constituted one hundred and five per cent. They include such cases as those in which a woman who apparently has an ample pelvis spends days trying to deliver what appears to be an average size baby with a normal presentation, or perhaps an obese individual turns out as labor progresses to have a breech after all, instead of the vertex which it was first thought to be. The doctor in trying to do what is considered the best thing for the patient will look up the indications for section, which he has probably forgotten since the last similar case arose, and will find no help there. He will gather the impression from his reading that the person who wrote the article at hand would do perhaps Duhrssen's incisions of the cervix for the first case, something which he may not feel able to do, and for the breech he may be told to use special forceps which may not be at hand. He gathers that given all the conditions that are involved in his case, there is no solution which he feels is thoroughly satisfactory, and that he must bungle along and hope that fortune will be with him.

When faced with such a dilemma it would seem that it is better judgment to seriously consider section than to go ahead with a procedure advocated by a person trained in special techniques and surrounded by the best of assistance and equipment, which under the conditions as

Continued on page 18

Report of Delegate to American Medical Association

The postponed annual June meeting of "The House of Delegates" was held at the Palmer House in Chicago on December 3-6, 1945. Your delegate had the pleasure of making the journey to Chicago with our State Association President who was bound out to attend meetings of the State Presidents and of the Officers and Executive Committee of The Federation of State Medical Boards of The United States of which he is President. We were located comfortably in the Palmer House after spending an hour or more in line waiting to reach the room-clerk's desk.

The meeting was called to order by Dr. H. H. Shoulders, the Speaker of the House, at 10.00 A. M., Monday morning, the third. One hundred and sixty delegates answered present to the roll call, and business proceeded as usual.

The Secretary reported a membership at close of year 1944 (remember this meeting was delayed six months), of 124,595, a gain of 1,009 for the year. As of October 1, 1945, members enrolled were 126,024. The Fellowship roster carried 68,637 names on December 31, 1944, as compared with 70,269 on same date in 1943. The decrease was due largely to the fact that thousands of Fellows were serving with the Military Forces in all parts of the world, and failed to carry their Fellowship although remaining members of the A. M. A. in good standing because their County Medical Societies had kept their names on the rolls. The State of Maine figures are as follows: number of physicians in state, 1,011; members of State Association, 755; number of Fellows, 341—and 454 physicians receive THE JOURNAL—40%.

The Trustees Report shows that the Net Income for the year 1944 was \$933,091.34 exceeding the Income of 1943 in the amount of \$214,217.58. The invested and uninvested total of funds December 31, 1944, amounted to \$4,663,916.31. These reports indicated that the association was in a strong and vigorous condition.

The Reports of the Councils followed and were accepted with a vote of appreciation for the good work which was being done.

Before the Reports were read, directly after

the roll call, came the balloting for the recipient of the Distinguished Service Award. Dr. George Minot of Boston was winning candidate, and during the ceremonies of installing President Lee, Monday evening, the award, in the absence of Dr. Minot, who was celebrating his 60th birthday in Boston, was entrusted by Dr. Lee to Dr. Reginald Fitz for safe conduct to the recipient.

The speaker's address which was read at the first morning session was a thoughtful presentation of the human side of medicine with emphasis on what he called "The Soul of Medicine." Dr. Herman L. Kretschmer, the retiring president, gave his address at this time and called upon the profession to guard well their standards of practice and to evaluate carefully the therapeutic effects of highly publicized medicines such as vitamins and glandular products. And he urged members of County Societies, the rank and file, to support their county society meetings. Dr. Lee, the President, gave an excellent address entitled "What is Adequate Medical Care?" This appears as the leading article in THE JOURNAL of December 8, 1945. It is recommended by your delegate that every member read it carefully.

The sessions, hereafter, were devoted to consideration of new business in the form of resolutions which were read to the delegates, referred to the various committees for hearing and discussion and later reported back to the House for approval or disapproval. There were, of course, many resolutions; the ones bearing on President Truman's Program, the Wagner Bill, the Pepper Bill gained the most attention. The Reference Committee reported in favor of the resolution opposing adoption of the new Wagner-Murray-Dingell Bill, and this report was accepted; also, accepted was the report opposing the adoption of the Pepper Bill. The President's proposals were carefully considered and thoroughly discussed. The feature proposing to grant federal aid for the building of hospitals and health centers throughout the nation was approved by the associations support of the Hill-Benton Bill. The features expanding maternal and child health services (similar to Pepper Bill) was disapproved. The

feature proposing compensation for loss of earnings due to sickness was approved as it has been in the past by the A. M. A. For a comprehensive, compact, cool and logical discussion of the President's National Health Program and the new Wagner Bill, your delegate refers you to the editorial in the December 1st issue of *THE JOURNAL*.

The Council on Medical Service and Public Relations introduced a most important resolution calling for authority to take immediate action in formulating a Voluntary Prepayment Insurance Plan for all the States; a plan which could be adopted by the states with changes which local conditions seemed to warrant. This was approved and information on progress will appear in *THE JOURNAL*.

The Committee on War Veterans proposed, and it was adopted, that all the states establish a Bureau of Information for War Veterans. A Bureau in plan similar to the one established in Connecticut by Dr. Creighton Barker, Executive Secretary of that State Association.

A Resolution to create a Section of General Practice of Medicine was proposed and adopted. This will be a Section for General Practitioners as distinguished from Specialists and will entitle the General Practitioners to a Section Delegate in the next House of Delegates.

Resolutions to confine the activities of the editor of *THE JOURNAL* to editorial work, and editorial work alone was discussed and disapproved.

General Hawley, senior medical officer and medical administrator in the Veterans' Bureau spoke of his plans for care of the sick and disabled veterans. The key plank in his developing platform was "The Best Possible Care for the Veterans." He reviewed the status of the Veterans' Facilities under past administrations, recognized some weaknesses which he intended to correct, urged members of local county societies to cooperate with the doctors in the Veterans' Bureau, and declared that he was in favor of plans to buy medical service from civilian doctors. And he further stated that he

avored hospitals near medical centers where the best medical care could be procured. He made an earnest straight-forward plea for good medical care free from politics for all veterans entitled to care.

In review, I will say it was apparent that the delegates were firmly opposed to "socialized medicine" and bureaucratic control. They maintained a staunch belief in the benefits of the present form of practice. They expressed support for voluntary pre-payment plans for medical care. They indicated interest in problems of the general practitioner and promoted the establishment of agencies to help the doctors returning from the war. They acted in a deliberate and democratic manner as Doctor Lee said they always had acted and they approved evolutionary progress in medical care as opposed to revolutionary changes.

In the final sessions new officers were elected. The President-elect is Dr. H. H. Shoulders of Nashville, Tenn., who has served with honor and distinction as Speaker of the House for many years. The Vice President is Dr. William R. Molony of Los Angeles, Calif. Dr. Olin West was unanimously re-elected Secretary and Dr. Josiah J. Moore, Treasurer.

Three Trustees were elected, Dr. John Fitzgibbon of Portland, Oregon, was elected to succeed Dr. Ralph Fenton of Portland, Oregon; Dr. James R. Miller of Hartford, Conn. was elected to succeed Dr. James R. Bloss of Huntington, West Virginia; and Dr. Dwight H. Murray of Napa, Calif. was elected to succeed Dr. Edward M. Peers of Los Angeles, Calif.

San Francisco was selected as the place for the 1946 meeting from July 1 to 5. Atlantic City will be the city to entertain in 1947 when the association celebrates its 100th birthday, and in 1948, St. Louis.

THOMAS A. FOSTER, M. D.,
Portland, Maine.

*Delegate to the American
Medical Association.*

***Pay Your 1946 State and County Dues Promptly
to Your County Secretary***

The President's Page

To the Members of the Maine Medical Association:

The etiological factors responsible for the present-day chaos in Maine Medicine are lethargy, disinterest, selfishness and a lack of coöperation on the part of the membership, as a whole, of the Maine Medical Association. This is strong language and an accusation, but it is true,—deny it if you can! The seeming desire of the brethren is to “let someone else run things” and then complain and vilify when you wake up to the fact that something has happened which is displeasing and disheartening. For fifty years and more we have conducted our Association business and legislative “activities” (?) in just this manner. With trusting complacency and a proud feeling of well being, a throw-back from the “horse and buggy days,” we have allowed ourselves to drift stern foremost into an exasperating mess. For the thirty-five years that I have been a member of this medical group, I have repeatedly seen it “put over on us” and we have been out-smarted at every turn, for the simple reason that we have meekly and weakly allowed certain cults and groups to band together, to work together and to plan together with competent leadership, and thereby gain recognition and privileges of practice to which they were not rightfully entitled! We have for years, delegated defensive action to certain committees and individuals, who took little or no interest and functioned in miserable fashion. It is the same old story,—we have been asleep and unwilling to bestir ourselves when it came to a consideration of legislative matters and the necessity to show some good old-time political acumen. It is high time that we waked up and dug down into our pockets and paid sufficient dues to allow for the hiring of a competent, fearless, active, politically trained lobbyist, or Executive Secretary, who could take over a whole time job and represent us in Augusta and look after our interests throughout the State. Look at Rhode Island! A smaller number of medical men in their Society, but just read their Medical Journal and see what they accomplish by having an Executive Secretary who does things!

We have been too willing to sit back and “Let George do it” and hope that someone will look after us while we “rest upon our laurels.” Just consider the debacle of fifteen years ago if you want an real illustration,—the time when our “leaders” sold us out “lock, stock and barrel” to a gang of medical pretenders just because we were “too proud to fight” and “there was no fear of competition!” It can and will happen again and we will be caught unprepared, as of old, if we don't look out! These “last minute” decisions of the House of Delegates, plus the inadequacy of committees with their “hit or miss” attempts to stem the tide of unwanted legislation at the State House, have landed us in the unfortunate and bothersome situation in which we find ourselves today.

There is only one way by which we may defend ourselves and safeguard the few rights and privileges which are rightfully ours,—and that is TO FIGHT and to BE POLITICALLY ACTIVE! Won't you vote in June at Poland Spring, for increased dues and let's get together a “kitty” such as some of the pseudo-medical cults maintain? Let us spend it for the hiring of the BEST and MOST AGGRESSIVE lobbyist, representative, Executive Secretary, or whatever you want to call him, and for once, at least, show the unbelievers that we ARE ALIVE AND CONSCIOUS!

ADAM P. LEIGHTON, M. D.,
President, Maine Medical Association.

Editorials

What Are You Doing About State Medicine?

Too many doctors of medicine are becoming indifferent and immune to the subject of national health insurance as embodied in the Wagner-Murray-Dingell Bill. Too many do not realize that their mode of professional life stops with the enactment of this measure. Too many have themselves been duped by the propaganda of the sponsors of this scheme. Not many realize that this measure will create absolute state medicine for the participants, and that they will become employees of the Government and responsible to the same for their every act. Too many are financially independent and are indifferent accordingly, thus betraying the past and future achievements of the medical science that gave them their knowledge and dignity, and that nurtured them.

The planning for the socialization of society, first through the creation of national health insurance throughout the world, one nation at a time, was drawn up by the International Labour Organization (I. L. O.) several years ago. The original founders of the I. L. O. were the International Association for Labor Legislation, and its many and various national affiliates. Assisting were such organizations as the International Association for Social Security, which advocated socialization of all phases of human endeavor.

In 1919, the United States Senate withheld action that would accord with the International Labour Organization plans. Despite that, the first officially approved International Labor Conference was held in Washington, D. C., in the Navy Building. The then undersecretary of the Navy arranged for that meeting.

When the United States Social Security Board was originally set up, members of the I. L. O. staff were called to Washington to help direct the effort. They have also given "expert" testimony to the Beveridge Committee in London, and similar socialization plans elsewhere.

According to Arthur Sears Henning, "the compulsory health insurance plan is chiefly the

brain child of Isidore S. Falk, research director of the Social Security Board, and Michael M. Davis, a member of the C. I. O. political action committee."

The strategy of these interlocked groups of revolutionists has culminated successfully in approval by the President of the United States. Around their standard have rallied many organizations and bureaus of "backstage" prominence who thirst for power.

In 1943 and 1944, the International Labour group advocated 114 proposals for the "improvement and unification of medical care services." This, you must note, is carefully phrased to sound benevolent and harmless. Many of these proposals are embodied in the Wagner-Murray-Dingell Bill (S 1050).

The I. L. O. medical program would relegate physicians to the role of skilled workers. Private practice would be frowned upon. All medical services would be regulated by law. Administration would be a central governmental agency with the help of unified local agencies. Its recommendations, too numerous to tabulate here, have for its ultimate goal the state control of the individual. The tempting, plausible and innocuous appearing lure is compulsory health insurance. Once this lure is taken the people are well on their way to being trapped. One has only to read the text of the Wagner-Murray-Dingell bill to learn the planning of the International Labour organization.

Everything that truly representative organized medicine has proposed — the *only expert* on the cause and treatment of the state of the national health — has been *completely ignored*. *What more do we need to convince us that this plan is a hoax and vicious revolutionary plot?*

Their massive propaganda is ample, insidious and appealing. Its master strategy is to create and indoctrinate the idea that our national health is bad and that it is due to bad, or as they say it "inadequate" medical care. *This is because there must be some definite body to attack, and the more defenseless the better.* They

have chosen to attack the profession of medicine.

Most of the attack against our profession is waged by trick analysis of statistics. For example, in 1936, untrained investigators asked people in a house to house survey if they had medical care. If the answer was "no," they were recorded as not having adequate care. If they said that they didn't like their medical care or they thought it wasn't good, they too were recorded as having inadequate medical care. The results of this "survey" are being broadcast over the land as an indictment against the medical profession.

Senator Wagner is continually challenging the statement that United States health and medical care is better than that in any other comparable country in the world. He cites the figures for New Zealand. Their figures have often appeared better than ours, but here is the "trick" in this bit of statistics. The figures for New Zealand do not contain those of its colored and native population.

When President Truman submitted the national health program to Congress November 19, *on the same day* that Murray's Senate 1606, and Dingell's house bill were introduced, he referred again to that choice item of propaganda that has been a leading subject for attack on the medical profession. I refer to Selective Service rejections. The repeated broadcasts of Selective Service rejections with its implication

of poor medical care violates every scientific principle in the interpretation of statistics. Although there were many rejections at the first of the war on physical factors alone, this was certainly not due to unfitness in the ordinary and usual social sense. Many of those who were rejected during the first of the war were considered physically fit during the last of the war. The emotionally unfit, who were screened out, are unmentioned. Also unmentioned are the inherited deficiencies, mental and physical. Unmentioned are the incurables, in terms of available medical knowledge.

Since the attack is fraudulent, the attackers are exceptionally vulnerable though inaccessible. We have only to ask "if medical care is inadequate, what good will come of compulsory health insurance? If this deplorable state of national health exists, as you pretend, and if it is due to inadequate medical care, the solution is simple; we have only to raise further the standards and numbers of our medical institutions, increase the enrollment of medical students, and perhaps build rural hospitals where they are needed."

There is only one thing that we can actually do against such a slippery foe. We must go to the people, not to defend medical progress, but to tell them the truth of this gigantic lie. It's about time that we started *doing* something more than talk among ourselves. It's high time that we started a crusade for existence.

Anent The President's Page, Your Association and Journal

Do not misunderstand the text or phraseology of the President's Page. There is no intent to discredit our Association Secretary. President Leighton has talked with him anent his desire to see that the members are adequately represented in all business and legislative matters. Dr. Frederick Carter has done an excellent job and it is a thankless job! He does exactly that for which he was hired and more and commendation is due him for all that we have as a JOURNAL and the careful supervision and maintenance of a business office. There is no plan nor a desire to replace him. The whole matter has been openly and fairly discussed with him. He realizes the necessity for an Executive Secre-

tary, one with whom he could collaborate, an individual who shall be an excellent public speaker, a trained worker of business ability and politically able and well known. To edit a JOURNAL, truly representative of this Association, replete with scientific material and discussion is no little undertaking. Our JOURNAL needs a little "punch" and stimulus. No one man, as Editor, can possibly do all this without the aid of the member doctors, for besides a goodly amount of ethical advertising, he must have scientific papers, reports and plenty of Association news to make it a success. County Secretaries should vie with one another to present reports of County Society meetings and they should immediately send in the speakers' papers and dissertations to be printed in the JOURNAL. Between now and the date of the

Annual Meeting much will be prepared for your consideration and discussion. Please try and make this June meeting an assured success by attending and taking an active part in its deliberations. It is YOUR Association. Nothing can or will be accomplished unless you give your time to thinking about and acting upon the several important matters which will be presented for your approval.

A program is being arranged, of real scientific and timely interest and speakers of National prominence, — celebrities indeed, will entertain and merit your acclaim. The re-birth and re-opening of the Medical School, — the possible necessary adoption of some form of Voluntary Medical or Health Insurance, some thought or action relative to the Veterans' Administration program and the shaping of plans for Post-War and Post-Graduate medical instruction are a few of the topics on the agenda for this meeting of the Maine Medical Association at Poland Spring on June 23-24 and 25.

Annual Session

The annual session of the Maine Medical Association will be held at the Poland Spring House, Poland, Maine, June 23, 24, 25, 1946.

The program for the session is well underway and plans are developing for an unusually good meeting. Speakers of national prominence have been contacted and are planning to be present. A large Commercial Exhibit is expected.

This is our first Post-War Meeting. For four years we were under restraint, each year making it necessary to curtail this or that activity. 1946 will find us going at top speed. Make plans to attend and make this a banner year.

Doctor James W. Loughlin Retires

The Maine State Bureau of Health has just lost, by retirement, one of its most distinguished members, Doctor James W. Loughlin of Newcastle, for many years District Health Officer for District III, comprising Kennebec, Knox, Lincoln, Sagadahoc and Waldo Counties.

American Medical Association House of Delegates

The annual meeting of the House of Delegates of the American Medical Association was held at the Palmer House, Chicago, December 3 to 6, 1945.

Dr. Adam P. Leighton, President of the Maine Medical Association, and Dr. Thomas A. Foster, Delegate to the A. M. A., attended the meeting, and reported that it was very interesting and that many important problems were discussed.

Dr. Foster's report appears in detail in this issue of the JOURNAL.

Senate Approves Federal Hospital Aid Plan

United States Senate has voted its approval of Senate Bill 191, and similar action is sought in the House on the Federal Hospital Aid Program which is expected to provide \$700,000,000.00 in new construction during the next five years.

Isn't That Socialized Medicine?

Senator Robert Wagner and his followers in the Wagner-Murray-Dingell Bill state that this bill would not create a system of socialized medicine.

The *Christian Science Monitor* makes this reply:

"Obviously when a compulsory system of Government medical care is set up to embrace the bulk of the people, that is socialized medicine.

"When Government hires doctors like postmen and pays them salaries, that is state medicine.

"The Wagner-Murray-Dingell Bill provides for both."

Socialized Medicine

The Doctors of our Nation oppose the Wagner-Murray-Dingell Bill, not for selfish reasons, but simply because they know if this

measure becomes a law, the public health of Americans will suffer a calamity. They know that this legislation will destroy once and forever the relations between doctor and patient, and will destroy all initiative for scientific advancement in skill and treatment. Under this law no patient can select his own physician. He must take the services of some physician, perhaps a total stranger to him, and designated under the list of Federal Tax Practitioners. In times of sickness, if that Bill should pass, the patient or his relatives would be forced to call some Federal Bureau before they could obtain medical aid. The physician would be regimented and put on call. If this Bill becomes a

Law, Americanized Medicine will be just another Federal Bureau in Washington.

Release of Medical Officers in the United States Army

According to information received in the Maine Medical Association office all physicians in the United States Army over 48 years of age are due for immediate release; all with 70 points, and all with 42 months of service (with the exception of certain specialists) are eligible for release within ninety days of December 31, 1945. By July 1st, 1946, only 11,000 doctors will remain in service.

Maine Physicians Separated from the Army, Navy or Other Services Since V-J Day to Appear Monthly

In order that the JOURNAL may publish monthly as complete and accurate a list as possible of Maine Medical Officers Separated from the Service the active coöperation of the Medical Officers themselves, or their relatives and friends, and County Medical Officers in transmitting such information to the office of the Maine Medical Association is solicited. Please send the information in promptly so that new names can be added to the list immediately.

The following is a list of Maine Medical Officers Separated from the Army, Navy or other Wartime Services, or on Terminal Leave, according to information received by the office of the Maine Medical Association since the names were published in the December issue of the JOURNAL, making a total of 65 Medical Officers discharged or on Terminal Leave.

<i>Aroostook County Medical Society:</i>	
Donahue, Gerald H.,	Presque Isle
<i>Cumberland County Medical Society:</i>	
Douphinett, Otis J.,	Portland
Fagone, Francis A.,	Portland
Getchell, Ralph A.,	Portland
Hanlon, Francis W.,	Portland
Leighton, Wilbur F.,	Portland

Lombard, Reginald T.,	South Portland
Marston, Paul C.,	Kezar Falls
McCrum, Philip H.,	Portland
McLean, E. Allan,	Portland
McManamy, Eugene P.,	Portland
Smith, Kenneth E.,	Portland
Spencer, Jack,	Portland
Tabachnick, Henry M.,	Portland
<i>Hancock County Medical Society:</i>	
Coffin, Silas A.,	Southwest Harbor
<i>Kennebec County Medical Society:</i>	
Gingras, Napoleon J.,	Augusta
Lathbury, Vincent T.,	Augusta
Pomerleau, Ovide F.,	Waterville
<i>Knox County Medical Society:</i>	
Apollonio, Howard L.,	Rockland
Brown, Freeman F., Jr.,	Rockland
<i>Lincoln-Sagadahoc County:</i>	
Proctor, Thomas E.,	Boothbay Harbor
<i>Oxford County Medical Society:</i>	
Eastman, Charles W.,	Livermore Falls
<i>Penobscot County Medical Society:</i>	
Gregory, I. Francis,	Bangor
<i>Somerset County Medical Society:</i>	
LANEY, Richard P.,	Skowhegan
<i>Waldo County Medical Society:</i>	
Jones, Richard P.,	Belfast

COUNTY SOCIETIES**Androscoggin**

President, Romeo A. Beliveau, M. D., Lewiston
Secretary, Leroy C. Gross, M. D., Auburn

Aroostook

President, Clyde I. Swett, M. D., Island Falls
Secretary, Thomas G. Harvey, M. D., Fort Fairfield

Cumberland

President, Elton R. Blaisdell, M. D., Portland
Secretary, Joseph E. Porter, M. D., Portland

Franklin

President, Albion E. Floyd, M. D., New Sharon
Secretary, George L. Pratt, M. D., Farmington

Hancock

President, Raymond E. Weymouth, M. D., Bar Harbor
Secretary, James H. Crowe, M. D., Ellsworth

Kennebec

President, Arch H. Morrell, M. D., Augusta
Secretary, M. Tieche Shelton, M. D., Augusta

Knox

President, Howard L. Apollonio, M. D., Rockland
Secretary, Freeman F. Brown, Jr., M. D., Rockland

Lincoln-Sagadahoc

President, Francis A. Winchenbach, M. D., Bath
Secretary, William A. Purinton, M. D., Bath

Oxford

President, Harold W. Stanwood, M. D., Rumford
Secretary, J. S. Sturtevant, M. D., Dixfield

Penobscot

President, George B. Weatherbee, M. D.,
Hampden Highlands
Secretary, Forrest B. Ames, M. D., Bangor

Piscataquis

President, Ralph C. Stuart, M. D., Guilford
Secretary, Norman H. Nickerson, M. D., Greenville

Somerset

President, Richard P. Laney, M. D., Skowhegan
Secretary, Maurice E. Lord, M. D., Skowhegan

Waldo

President, Foster C. Small, M. D., Belfast
Secretary, R. L. Torrey, M. D., Searsport

Washington

President, John F. Hanson, M. D., Machias
Secretary, John Young, M. D., Jonesport

York

President, Harry L. Prescott, M. D., Kennebunkport
Secretary, C. W. Kinghorn, M. D., Kittery

County News and Notes**Cumberland**

The following Officers were elected at the annual meeting of the Cumberland County Medical Society held December 18, 1945:

President, Elton R. Blaisdell, M. D., Portland.

Vice President, Robert B. Love, M. D., Gorham.

Secretary-Treasurer, Joseph E. Porter, M. D., Portland.

Delegates to the Maine Medical Association for one year: Frank A. Smith, M. D., Westbrook; Kenneth E. Dore, M. D., Fryeburg; and Francis J. Welch, M. D., Portland. Alternates for one year: Isaac M. Webber, M. D., Portland; and Waldo T. Skillin, M. D., South Portland.

Delegates to the Maine Medical Association for two years: G. E. C. Logan, M. D., Portland; Wilbur F. Leighton, M. D., Portland; and Francis W. Hanlon, M. D., Portland. Alternates for two years: Henry M. Tabachnick, M. D., Portland; and Donald G. Wight, M. D., South Portland.

Legislative Committee: DeForest Weeks, M. D., Portland; and Franklin A. Ferguson, M. D., Portland.

Public Relations Committee: John R. Hamel, M. D., Portland; and Luther A. Brown, M. D., Portland.

Councilors: Henry P. Johnson, M. D. (three years); Albert W. Moulton, M. D. (two years); George A. Cummings, M. D. (one year).

JOSEPH E. PORTER, M. D.,
Secretary.

Hancock

The annual meeting of the Hancock County Medical Society was held at the Hancock House, Ellsworth, Maine, on Wednesday evening, December 12, 1945, at 6.30 P. M.

The following Officers were elected to serve for the ensuing year:

President, Raymond E. Weymouth, M. D., Bar Harbor.

Vice President, Arthur H. Parcher, M. D., Ellsworth.

Secretary-Treasurer, J. H. Crowe, M. D., Ellsworth.

Censors: Dwight Cameron, M. D. (for one year); Edward Thegen, M. D. (two years); Raymond W. Clarke, M. D. (three years).

Delegate to the Maine Medical Association: Dr. Crowe. Alternate: Phillip L. Gray, M. D., South Brooksville.

R. V. N. Bliss, M. D., of Blue Hill, presented a paper on "What is a Check-up?" This was followed by a general discussion.

J. H. CROWE, M. D.,
Secretary.

Knox

The annual meeting of the Knox County Medical Society was held at the Copper Kettle, Rockland, Maine, on December 11th, 1945.

The following Officers were elected for the ensuing year:

Continued on page 16

Wyeth

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A USEFUL LAXATIVE—Cascara Petrogalar combines the mild stimulating action of cascara with the softening effect of homogenized mineral oil. Prompt, easy evacuation of soft, formed stools is assured without undue strain or discomfort. Especially useful in treating stubborn cases and in elderly persons, its pleasant, dependable action helps to restore "habit time" of bowel movement. CASCARA PETROGALAR—an aqueous suspension of Mineral Oil, 65%, with aqueous extract of Cascara Sagrada, 13.2%.



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President, Howard L. Apollonio, M. D., Rockland.
 Vice President, Harry G. Tounge, M. D., Camden.
 Secretary-Treasurer, Freeman F. Brown, Jr., M. D., Rockland.

Delegates to the Maine Medical Association: C. Harold Jameson, M. D., Rockland; and Herman J. Weisman, M. D., Rockland. Alternates: Dr. Apollonio and Dr. Herbert L. Miller, M. D., Camden.

Censor for 1949: Paul A. Millington, M. D., Camden.

The society was glad to welcome Dr. Apollonio and Dr. Brown, Jr., back from service. Both are starting practice in Rockland.

Ralph Dennen, M. D., of Tenants Harbor, has been elected to membership in the society, and Anna Platt, M. D., of Friendship, has transferred her membership from the New York County Society.

PAUL A. MILLINGTON, M. D.,
Secretary.

New Members

Knox

Ralph Dennen, M. D., Tenants Harbor, Maine.
 Anna Platt, M. D., Friendship, Maine (By transfer from the New York County Society).

Change of Location

George I. Gould, M. D., recently separated from Military Service, and formerly located at Biddeford, plans to open an office at Richmond, Maine.

Gordon N. Johnson, M. D., recently separated from Military Service, and formerly located at Portland, has opened an office at Houlton, Maine.

Notices

State of Maine Board of Registration of Medicine

Adam P. Leighton, M. D., 192 State Street, Portland, Secretary.

List of Physicians Licensed in Maine on November 13th, 1945.

Through Examinations

Donald Earl Bridges, M. D., 796 Union Street, Bangor, Maine.

Chandler Alton Stetson, Jr., M. D., Maine General Hospital, Portland, Maine.

Through Reciprocity

Aloys George Ansprenger, M. D., 900 Illinois Road, Lake Forest, Ill.

Leandre R. Charest, M. D., Masonic Building, Biddeford, Maine.

George William Jean, M. D., 1415 Laguna Street, Santa Barbara, Calif.

Henry George Lonsdale, M. D., 282 Washington Street, Hartford, Conn.

Alexander Walter Magocsi, M. D., 23 Beach Ave., Salem, Mass.

HOSPITAL STAFF MEETINGS

Open to the Profession

CITY	HOSPITAL	DATE
Augusta	Augusta General Hospital	1st Wednesday
Bangor	Eastern Maine General	2nd Tuesday
Bath	Bath Memorial Hospital	1st Tuesday
Belfast	Waldo County	2nd Friday
Boothbay Harbor	St. Andrew's Hospital	1st Tuesday
Caribou	Cary Memorial	1st Wednesday
Damariscotta	Miles Memorial	1st Thursday
Lewiston	Central Maine General	1st Monday
	St. Mary's General	2nd Monday
Portland	Maine Eye and Ear Infirmary	1st Wednesday
	Maine General	2nd Friday
	Mercy	3rd Thursday
Presque Isle	Presque Isle General	1st and 3rd Tuesdays
Rockland	Knox County General	1st Monday
Rumford	Rumford Community	4th Wednesday
Sanford	Goodall Memorial	2nd Monday
Waterville	Sisters	2nd Tuesday
	Thayer	Every Thursday

The above list was compiled from a questionnaire sent out by the Maine Hospital Association. Additions or corrections will be made on notification to the Secretary, Maine Hospital Association, Thayer Hospital, Waterville.

Albert L. Schonberg, M. D., Grenier Field, Manchester, N. H.

Philip Bray Thomas, M. D., Main Street, Monson, Maine.

The next examination will be held at Portland, Maine, March 12 and 13, 1946. Apply to Adam P. Leighton, M. D., Secretary, 192 State Street, Portland 3, Maine.

Maine Openings for General Practitioners

Stonington (714), Hancock County

Need physician and surgeon, many patients need care—Doctor six miles away is not able to care for all in this town as well as his own.

Cherryfield (500), Washington County

Good opportunity for an M. D. at Cherryfield—only an osteopath there at present.

Cornish (528), York County

Dr. Sawyer wishes to retire as soon as possible. Wants young man to take over, can start good country practice at once. Town is small with many small surrounding towns. Has clothing factory, schools, stores, church and fine water system. 30 miles from Portland with access to good hospitals. Dr. Sawyer is only M. D. in town. Can assure a good practice and home to right man. Write Dr. Samuel G. Sawyer, Main Street, Cornish, Maine.

For any additional information, please write to Frederick R. Carter, M. D., Secretary, Maine Medical Association, 142 High St., Portland, Maine.

American Medical Association Conference of Secretaries and Editors

The Conference of Secretaries and Editors will be held at the offices of the American Medical Association, Chicago, Friday and Saturday, February 8th and 9th, 1946. Officers of Constituent State Medical Associations and County Societies are invited to attend.

American College of Physicians

The American College of Physicians will hold its 1946 annual meeting at Philadelphia, May 13-17, inclusive. Headquarters will be at the Philadelphia Municipal Auditorium, 34th Street below Spruce.

The meeting will be conducted under the Presidency of Dr. Ernest E. Irons, Chicago, Illinois, and the General Chairmanship of Dr. George Morris Piersol, Philadelphia.

Effective Convenient Economical

THE effectiveness of Mercurochrome has been demonstrated by more than twenty years of extensive clinical use. For professional convenience Mercurochrome is supplied in four forms—Aqueous Solution in Applicator Bottles for the treatment of minor wounds, Surgical Solution for preoperative skin disinfection, Tablets and Powder from which solutions of any desired concentration may readily be prepared.

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is economical because stock solutions may be dispensed quickly and at low cost. Stock solutions keep indefinitely.

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Book Review

"The Management of Obstetric Difficulties"

By: Paul Titus, M. D., Obstetrician and Gynecologist to the St. Margaret Memorial Hospital, Pittsburgh; Consulting Obstetrician and Gynecologist to the Pittsburgh City Homes and Hospital, Mayview, and to the Homestead Hospital, Homestead, Pa.; Secretary of the American Board of Obstetrics and Gynecology; Commander (MC) USNR, attached to Professional Division, Bureau of Medicine and Surgery, Navy Department, Washington, D. C.

With 426 Illustrations and 8 color plates. Third edition.

Published by The C. V. Mosby Company, 1945.
Price, \$10.00.

This is the third edition of this book; many additions and changes have been made. One of the outstanding is the use of penicillin in the treatment of sepsis, gonorrhea and syphilis complicating pregnancy. Its dosage and technic of administration is discussed in detail. The book is divided into eight sections: sterility, difficulties in diagnosis of pregnancy, complications of pregnancy, complications of labor, obstetric operations, complications of the puerperium, the new born infant, and general. It is well written and abundantly illustrated.

Caesarean Section as Adapted to the Physician—Continued from page 6

applied to this particular case might well jeopardize the life of the mother or child. The textbook division of delivery into the "passage" and the "passenger" should mentally be extended to include the "passer," i. e., the physician, and the equipment at hand as well, when a complicated case is to be delivered. The problem of transfusion is one important stumbling block in itself because any difficult procedure is likely to produce hemorrhage which can be treated readily by adequate supplies of blood in a large hospital, whereas in a small one the need is usually past by the time the blood can be obtained.

Consideration of section should be kept in mind from the earliest moment that complications are suspected, and certain precautions taken with that in mind. Morphine is best avoided completely so that it will not further suppress the breathing of an anesthetized baby, and vaginal examination should be refrained from unless it is done once for definite indications, under strict asepsis. Rupture of the membranes in an attempt to speed up a slow labor should not be done as long as there is any possible need of a Caesarean. On the other hand, neither full dilatation of the cervix, vaginal examination, nor rupture of the membranes need be considered as an absolute contra-indication to section.

Another thing which should be put on the balance in weighing the advisability of section is the ability of the available surgeon who

would do the operation. This is another item which naturally does not come into consideration in "authoritative" writings. Section is not a simple operation in the hands of a person who does very few, but one gathers the impression that in patients who are generally good risks the mortality is not too high compared with the probable higher mortality if delivered from below. The percentage of good results is of course in direct ratio with the number of patients who are sectioned early rather than as a last resort after attempts have been made at delivery.

SUMMARY

Women will continue to be delivered by physicians who are not specialists in the field and who are not adequately trained to meet the difficulties involved in delivering the occasional seriously complicated case. In these cases it is to the advantage of all concerned not to adhere too strictly to the textbook indications for Caesarean section.

CONCLUSION

In delivering a complicated obstetric case the physician should consider not only the mother and child, but his own ability and equipment as well. He should not let his own judgment be ruled too much by the more experienced writers of textbooks.



The Journal of the Maine Medical Association

Volume Thirty-seven

Portland, Maine, February, 1946

No. 2

The Diagnosis and Primary Surgical Treatment of Injuries of the Hand ***

WILLIAM EDWARD BROWNE, M. D.

Not less than seventy out of every one hundred industrial accidents result in injury of the hand. Ninety-eight out of every one hundred persons engaged in industry may become totally incapacitated because of one crippled hand. Stockroom, shipping-room workers, janitors, a small percentage of oilers, elevator operators, time clerks and watchmen, comprise the majority of those employed in industry who may, in some degree, earn a living with one crippled hand. Business men recognize the fact that disabling injuries hurt business, and have for some time past done a great deal in accident prevention work. Safety engineers employed by insurance companies, and inspectors from the Department of Labor and Industries of the several States, make routine examinations of industrial plants to assure the working man or

woman a safe place in which to work. They have accomplished a great deal. There is, however, no real way of applying a fool-proof protective device on a circular saw which every year injures seriously the human hand. There seems to be no sure way of preventing a punch press from repeating with a person's hand caught in it when the press comes down. There is no rule anywhere in effect in industry which demands that one man alone shall clean and oil a machine. Very frequently while a man is engaged in such work, with the machine at rest, another man sets the machine in motion, and a wiping rag in the oiler's hand in an instant is drawn into the machine with the hand, wrist and forearm wound about a moving shaft. Flesh and bone alone stop the machine and forever that man has at best a partially crippled hand. Departments of Safety in each State and police departments recognize the value of loud speakers to direct traffic and warn persons of nearby danger. "Single file only on hill, slippery when wet," signs are seen on our highways. At the zoo the child who can read understands the meaning of the sign, "Do not put your hand inside the cage." Valuable, indeed,

The Author. William Edward Browne, M. D., of Boston, Massachusetts. Surgeon-in-Chief, Second Surgical Service, Carney Hospital; Clinical Professor of Surgery, Tufts College Medical School.

* Presented at the Fall meeting of the New England Conference of the American Association of Industrial Physicians and Surgeons, at Pawtucket, R. I., October 10, 1945.

** Reprinted from *The Rhode Island Medical Journal*, Vol. XXVIII, December, 1945, No. 12, Page 875.

are the measures which have been taken in industry to protect the workingman's hand. Sufficient emphasis has not been laid on warning the workingman that *he* must protect his hand. At times a person is set back a little when a check is returned with the notice that the account is overdrawn. This predicament need not occur if one pays attention each month to the statement received from the bank. Too often a step broken for some time is repaired only after a person has fallen and fractured a hip. A worker gets in a rut about working at moving machinery — so does management, and something serious has to happen to jog one out of the rut. How worth while it would be in the machine shop, the carding room in the mill, or in the pattern shop, to have the loud speaker once a month warn the worker about safeguarding the hand. Three minutes a month would be sufficient time for it, and work could continue while the information is broadcasted.

If everything were done which could be done, and at present that is not so, the workingman would still injure one of the most useful parts of the body,—the human hand. When he does injure it, a doctor should be called. Matters of detail will not be discussed in this short address. Certain important "musts" will be considered.

DIAGNOSIS OF INJURIES

Skin, underlying fatty tissue, muscles and tendons, bones, nerves and blood vessels, are the structures injured. The unbroken skin is highly resistant to infection. Once the skin is broken, all exposed underlying parts are in danger of infection. The time which elapses from the very instant the accident happens until a potentially infected wound is cleansed is the danger zone time, and much depends on what happens in that time. A lay person can make a diagnosis of skin injury when a cut in the skin is seen. It is very difficult, however, accurately to diagnose degrees of skin injury and to decide how much skin may not remain viable, and what to do about it as a part of primary treatment. How much skin should be excised? Should a skin graft be a part of the primary treatment? If skin graft is done, what type of skin graft should be used, and from what part

of the body should the skin be removed? How much tension will a certain layer of skin stand after sutures have been taken? What is the significance of blanching of skin edges after suturing?

A diagnosis of muscle and tendon injury is not as a rule difficult. The joints in the hand are largely ginglymus or hinge joints, and permit chiefly of two motions,—flexion and extension. These motions are brought about, therefore, through flexor and extensor muscles with their tendon attachments. In a general way it is correct to say most all of the flexor and pronator muscles arise from the region of the inner side of the elbow; the extensors and supinators from the outer side of the region of the elbow; that is, a short distance below and above the elbow joint. All of the important long flexor muscles pass beneath the anterior carpal ligament through the carpal canal. This canal is in diameter the size of one's little finger; the roof of it, the anterior carpal ligament, and that is seldom deeper than one-half inch or, at the most, three-quarters of an inch beneath the surface of the skin. In this canal with these flexor tendons passes but one large nerve — the median nerve. If, therefore, you see a wound in the wrist, which is a half-inch or more in depth and frequently less than a half-inch in depth, you should at once be mindful of tendon and nerve injury. Proximal and distal flexion palmar creases, metacarpo-phalangeal creases and joints, proximal interphalangeal and distal interphalangeal joints are terms frequently used. As you look at the injured hand, remember that if the joint nearest the fingernail does not bend after trauma, a deep flexor tendon has been somewhere divided. If the joint nearest the palm of the hand does not flex following a hand injury, one or both halves of the superficial or short flexor have been injured. The metacarpo-phalangeal joints are quite complex. To simplify their action somewhat, and to facilitate diagnosis of injuries to structures which move these joints, these facts should be kept in mind.

There are four lumbrical muscles: the first two serve the index and mid-fingers, and the last two, the ring and little finger. There are seven interosseous muscles. In a general way these arise from the sides of the metacarpal bones. The palmar and the dorsal interossei

have somewhat separate functions. The chief function of all these interossei muscles is to spread the fingers apart and to bring the fingers together.

Please look at your hand, with the palmar surface facing you and the fingers extended. Look at the metacarpo-phalangeal joints. Flex those joints to right angle position. That action is brought about by the combined action of the lumbricals and, to a certain extent, I believe, by the interossei. It is not difficult to understand these actions if you bear in mind the origin of the lumbrical muscles from the deep flexor tendons and their insertion in a general way on the extensor surface of the finger at the metacarpo-phalangeal joint. The interossei muscles, as has been stated, come from the sides of the metacarpal bones and are inserted, in a general way, on the extensor surface of the metacarpo-phalangeal joints. It is not error to consider the structure which extends the metacarpo-phalangeal joints and the interphalangeal joints as being made up of three structures fused into one. Certain anatomies differ in some detail from this interpretation of the distribution of these structures. The first two lumbrical muscles are supplied by the median nerve. The third and fourth by the ulnar nerve. All of the interossei are supplied by the ulnar nerve. If the workman's hand after injury is incapable of carrying out these motions above described, then muscles with tendons or nerves have been injured.

THE THUMB

Consider the thumb. Look at it with the palm of the hand facing you. Bend the distal joint of the thumb, the only interphalangeal joint in it. That action is brought about through the long flexor. Place your finger on the skin at the middle of the wrist joint with the interphalangeal joint of the thumb flexed, and also the metacarpo-phalangeal joint flexed, and the first metacarpal bone, or the thenar eminence, extended or abducted. Carry your finger from the middle of the wrist three-quarters of an inch forward. Then carry your finger along the middle of the thenar eminence, and that is the surface marking of the deep flexor tendon. If you keep this in mind in looking for this tendon after it has been divided by injury, you will come right down on it without

needlessly destroying the important small or intrinsic muscles of the thenar eminence. In close relationship to this long flexor tendon is the important motor branch of the median nerve and two smaller sensory branches.

Look at the hand once more, with the palmar surface facing the eye, and looking at the thumb with the metacarpo-phalangeal joint flexed and the interphalangeal joint extended. Put your finger on the lateral margin of the first or proximal phalange. In a general way, on this margin are inserted two important tendons: the abductor pollicis and the outer head of the short flexor of the thumb. Put your finger now on the inner or ulnar lateral margin of the first phalange, and here are inserted a part of the transverse oblique adductor muscle and the inner half of the short flexor, or the flexor brevis muscle. Going down the middle pathway, at the base of these four structures just named passes the long flexor tendon. Never more than a half-inch laterally to each side of this long flexor tendon are the quite important digital nerves, which are sensory nerves.

Here, it may be stated, extension and abduction are combined motions; flexion and adduction are combined motions. And now comes opponens action. That does not mean approximation of the palmar surface of the thumb to the palmar surface of each distal phalangeal area, but it means the bringing together of the tip of the thumb to the tip of each finger. That opponens action is a combination of, first, slight extension and abduction, because obviously you could not bring the tip of the thumb and any finger together with the thumb flexed and fully adducted or bent across the palm of the hand. Then comes flexion and some degree of adduction, so that the tip of the thumb and each finger do come together. The important thenar motor branch of the median nerve supplies the opponens pollicis muscle.

Look at the hand once more. Flex the interphalangeal joint of the thumb and the metacarpo-phalangeal joint with the first metacarpal bone not fully but three-quarters abducted. Drop the tip of a finger from the tip of the thumb down directly to where it strikes the thenar eminence. That is very close to this underlying very important motor branch of the median nerve.

With injuries at the wrist or at the base of the palm of the hand, or in the thenar eminence, you must be prepared to diagnose accurately muscle or tendon injuries, or loss of muscle or tendon action because of nerve injuries.

Very briefly, the diagnosis of these nerve injuries will be considered in a few moments.

BONE INJURIES

In connection with bone injuries, one thinks at once of the X-ray. Before an X-ray may be obtainable, as part of primary treatment, we must be prepared to recognize massive dislocations of the hand on the wrist, and be prepared to reduce that dislocation, which may be done without too much difficulty unless it is associated with comminuted fractures at the wrist joint or in the joints formed by the distal row of carpal bones and the adjacent bases of the metacarpal bones. Before an X-ray may be obtainable, if the patient or a co-worker has not already, and at times very well, straightened out an interphalangeal dislocation, we must be prepared to do that. The angle of the shaft of a metacarpal bone should be kept in mind. Depressions in the metacarpal bone most often associated with a depression of the distal end with a dropped knuckle, so-called, may be easily palpated and a corrective splint in proper position applied before an X-ray is obtainable. A complete subluxation of the proximal end of one phalanx beneath the distal end of another is at times seen. This is associated with a rupture of the overlying extensor structure of the finger, and may readily be detected without the aid of an X-ray. There is no definite rule which can be laid down as to the necessity for X-ray examination. That is largely a question of one's experience and judgment; and it seems the more experience one has and the better one's judgment becomes, the more frequently are X-ray examinations advised and obtained. Certainly a little laceration by a pen-knife at the tip of the finger or a puncture wound caused by a lead pencil on the palmar surface of the finger, or the laceration on the back of the butcher's hand caused by a piece of chicken bone as he dresses the chicken,—ordinarily such wounds would not make one consider X-ray examination necessary.

This discussion is concerned with the diagnosis and primary treatment of hand injuries.

However, it may not be out of place at this point to state that before incisions are made in any part of the hand, in the treatment of sepsis, including the formation of pus, an X-ray examination should be made. Perhaps everyone who has had much experience with swollen, painful hands has opened the dorsal aspect of a hand to evacuate pus, and none was found. Clotted or free blood was found and then an X-ray picture was obtained and for the first time the diagnosis of fracture was made.

No worth-while rule seems to have thus far been established which would prevent carpal scaphoid fractures being treated for sprains for variable periods of time before an X-ray revealed a true fracture. At first many of these fractures are not displaced and are amenable to treatment. Use of the wrist and hand, and the patient working as long as he could go after the accident, results in displacement of carpal scaphoid or navicular fractures with extremely long periods of disability resulting therefrom.

NERVE INJURIES

The nerves of the hand which are injured by accident are three in number: First, the radial, second, the ulnar, and third, the median nerve. Radial nerve injuries, where the wound is confined to the wrist or hand, do not result in motor dysfunction, and therefore movements of the fingers are not measurably affected. The radial nerve, anastomosing as it does with the sensory branch of the ulnar nerve on the back of the hand, may be injured, and occasionally is the focus of injury which terminates in a condition referred to as causalgia. *The ulnar nerve* is unfortunately frequently injured, and the word "unfortunately" is used because it is considerably more difficult to obtain restoration of function following repair of this nerve than in cases of median nerve injury.

Please look at your hand. Feel the lower end of the ulna and the smallest of the carpal bones, the pisiform. Put your index finger on the center of the beginning of the palm of the hand, that is, just in front of the main crease in the skin at the wrist joint. Draw a line from the head of the ulna to the point at the base of the palm of the hand. A laceration or puncture wound a half-inch or less in depth, and seldom deeper than that, which traverses that line, is pretty sure to injure the ulnar nerve.

We are not at the moment considering ulnar nerve injuries in the forearm, or at the elbow, or higher up. That wound just referred to injures the ulnar nerve because it is superficially placed and it lies above the surface of the anterior carpal ligament. That is the more important part of the ulnar nerve. A somewhat less important and easily recognized branch of the main trunk of the ulnar nerve comes off frequently two and seldom more than three finger's breaths above, or proximal to, the distal end of the carpal bones. The larger and frequently injured trunk of the ulnar nerve supplies all the interossei muscles and two lumbrical muscles, and the adductor muscle of the thenar eminence, and one-half of the short flexor of the thumb. The action of these muscles just named has been outlined above. If there are no injuries in the palm of the hand, and if the fingers cannot spread apart or come together so the sides of the fingers touch one another, with a wound at the wrist, the ulnar nerve has been divided. Diagnosis of this injury must be accurately made.

The median nerve is often injured. Look at your hand, with the palmar surface facing you. Place your finger on the skin in the middle of the wrist joint or carpal region. Move the tip of your finger back and forth a little in a transverse direction. You feel a tendon moving beneath the finger. That is the palmaris longus and so far as function is concerned it is not extremely important. It is very important as a landmark because just beneath it and a thin layer of fat and connective tissue is the median nerve. It is larger than the ulnar; it is more deeply situated. As already stated, it passes through the carpal canal, and it is quite amenable to surgical treatment. The longer the period of time which elapses following injury to these nerves before surgical treatment is carried out for their repair, the poorer the end result may be. It is therefore unfortunate that as part of primary surgical treatment nerve sutures at times should not be attempted.

Follow this median nerve through the carpal canal. It comes into the palm and lies always beneath the palmar fascia or palmar aponeurosis. In injuries involving laceration of this palmar fascia,—that is, when you look into the wound and see the edges of the palmar fascia, you must be suspicious of median nerve injury.

It has been stated above that the median nerve in the palm makes possible motion in one-half of the short flexor of the thumb and the abductor of the thumb. It is the entire nerve supply to the opponens pollicis muscle, and it supplies the first and second lumbricals. It also gives off sensory branches to the sides of the thumb, the second, the third, and one-half the fourth finger. Final diagnosis of nerve injuries should not depend upon varying degrees of sensation or lack of it.

Right after the accident happens the patient is naturally not in a tranquil state of mind and has great anxiety about the outcome of an injury, particularly if it is considered at all serious. At that time the patient's interpretation of degrees of sensation present may be very erroneous.

Injuries affecting the radial, ulnar and median nerves in the hand have been outlined. It may be well to emphasize at this point that although both the median and ulnar nerves have been divided at the level of the wrist, nevertheless the patient may grasp and hold onto the handle of a hammer or two fingers of your hand. The reason for that obviously is that the motor supply of all the superficial and deep flexors of the fingers is given off at a level above the wrist joint or the base of the palm of the hand.

BLOOD VESSEL INJURIES

It may be correctly stated that very close to the nerves named above there are important blood vessels. A possible exception to this statement is in regard to the median nerve with which, as it passes through the carpal canal, there is no large blood vessel. The ulnar artery lies very close to the ulnar nerve, and it is very small, relatively speaking, even in the adult.

Look at your hand, with the fingers widely spread apart. Draw a line from the web of the extended thumb to the distal end of the fifth metacarpal bone. That marks the position of the underlying superficial palmar arch which sends off quite large branches. From this line just named, carry forward lines to the mid-point of the palmar edge of the web between each of two fingers. That is the surface marking of the branches of the superficial palmar arch and at the mid-point of the web just re-

ferred to these branches divide, sending off branches to the sides of the fingers. Directly associated with these blood vessels in the palm and in the fingers are nerves, none of which in the adult is much smaller than the average wooden toothpick in diameter, and therefore they are not difficult to recognize. Diagnosis of blood vessel injuries is obviously closely allied to diagnosis of nerve injuries in the palm, since these two structures lie so close together.

Very carefully carried out suturing of all layers of the skin in the palm of the hand in which no tendon or muscle is injured, may result in a sloughing wound of the palm from a hematoma which forms as a result of division of an important branch of either the superficial or the deep palmar arch. In a general way, the deep palmar arch lies one finger's breadth proximal to the superficial, and is very close to the palmar surface of the metacarpal bones.

In wounds of the wrist it is indeed important to make diagnosis as to division of both the ulnar and the radial arteries. It is true that at times both of these large vessels may be ligated at the wrist and still have sufficient blood supply to maintain viable the structures of the palm and the fingers.

Some years ago we carried out a series of dissections to determine the absence of typical radial and ulnar arteries. In seventy extremities examined, but two were found in which there was a markedly anomalous development of branches of the brachial artery. It is unimportant herein to consider these anomalies. It is important to be sure of the blood supply before deciding on treatment, particularly with reference to viability of muscle and overlying skin and especially before proceeding with skin grafts as part of a primary surgical procedure.

TREATMENT

It has already been stated that the unbroken skin is quite resistant to infection. Once the skin is broken, all underlying structures are exposed to infection. Every wound is potentially infected. The time which elapses between the creation of a wound to the time it is properly cleansed is the danger zone time, and the longer that time is, the greater the likelihood of serious infection. That statement is true today, notwithstanding sulfa drugs and penicillin.

Some sort of tourniquet is frequently necessary to stop bleeding. The best form of tourniquet is a blood pressure cuff placed smoothly about the upper arm, with the shoulder joint halfway between complete internal and external rotation and the forearm halfway between complete pronation and supination.

At the present time and apparently for some time to come, an ordinary leather belt, or a piece of rubber tubing, or a handkerchief will be the forms of tourniquet used in industrial plants where a co-worker is the one who first puts on the tourniquet. Not infrequently when the doctor first sees the patient bleeding does not stop until one of these just named materials used for tourniquets is removed. Obviously, the material used and the use of it did not control blood coming into a part from a fairly large artery. Marked venous bleeding is encountered. Loss of blood may result in loss of life and must be controlled.

In the industrial plant, through the loud speaker already referred to, all who are working may be taught the necessity of covering a wound with something, and the cleaner the something, the better. It might seem gross error to say a wound had better be covered with a soiled handkerchief, not to speak of desirable clean waste always available in an industrial plant, rather than leave the wound open while the patient is being transferred to a doctor's office or even the first aid room in the plant.

Once the trained industrial nurse, or the physician, sees the wound, very little choice of treatment is at one's disposal. So far as the wound is concerned, it must be made clean and tissues must not be injured so that they will become non-viable by materials used in cleansing the wound. Regardless of conditions in which the wound was made, it must be promptly cleansed, if the cleansing of it does not endanger life, as, for example in a patient in serious shock. No attempt will be made to discuss shock treatment. When the nurse or the doctor sees the wound, it must be covered by sterile gauze. A great many of these wounds may be thoroughly cleansed without the use of general or local anesthetics. A nurse or a physician would not enter an operating room with operation in progress without a mask on. The physician or nurse should have a mask on while

cleansing these wounds. If at all possible, rubber gloves should be worn. The area about the wound is cleansed with bland white soap and warm water. Cotton or soft gauze may be used. A brush should not be used. Immersing the injured hand and forearm in a warm water bath may be a necessity. It is better, however, to cleanse the area about the wound, and that means all about it,—all of the surfaces of the forearm and hand, including shaving of these parts, with running water which is not too hot and not cold. Ordinary tap water from a faucet in the factory or first aid room or accident room in the hospital may be used with a considerable degree of safety. We use not less than a hundred quarts of warm sterile water, which is being poured slowly about the wound and then into the wound, before any primary operative procedure is undertaken. Those who have had experience in these measures used in cleaning wounds will verify the statement that the procedures outlined thus far may, in many cases, be carried out without anesthetic.

After the area about the wound has been cleansed, the wound itself is then uncovered and cleansed and a diagnosis of underlying injuries is made and recorded. Up to this point the treatment is the same in nearly all cases. From here on the following must be considered in deciding upon further measures in primary operative treatment:

(1) Where the wound occurred. That is, the premises. Was it a relatively clean knife in the cutting room of a shoe factory? Was it a broken milk bottle injuring a child's wrist? If so, was it in a somewhat clean kitchen or in the barnyard or running across the lawn on which manure had been spread?

(2) Is it a puncture wound — a relatively clean incised wound, an extensive lacerated wound with avulsion of skin, a crushing wound as from a rock falling on a man in a trench? Was the wound created by a carding machine in a woolen mill, etc., etc.?

(3) How extensive is the wound? What structures considered above under the heading "Diagnosis" are injured? In determining the structures injured, an anesthetic is frequently necessary. When at all safe to use, a general anesthetic is preferable to local. Ether alone,

or used with gas, is the safest general anesthetic. Obviously, procaine solution as a local anesthetic in a puncture wound is all that is needed. The wound is made an open wound, drainage may or may not be used, and in all puncture wounds sensitizing and later therapeutic doses of antitetanus and gas serums are used.

We have no fixed rule applicable to all hand injuries as to the use of these prophylactic preparations.

Foreign bodies, including pieces of clothing, strands of wool, glass, etc., should be removed. Care should be taken in lifting out of a wound with an instrument a piece of glass which may have curved its way around an important nerve or blood vessel. The wound should be sufficiently enlarged so the glass may be extracted without pulling it across or against adjacent structures.

Consideration has been given above to skin, muscles and tendons, bones, nerves and blood vessels. Intentionally, treatment of burns has not been included in this discussion. Avulsed skin, as for example the skin of the whole dorsum of the hand, after cleansing may be replaced and sutured without tension to adjacent skin edges or tacked with fine silk or wire sutures to underlying structures. Primary skin grafting on the avulsed bulbar surfaces of fingers has not given us such good results as have been obtained when grafting was done as a secondary and elective procedure. Exposed tendons, whether divided or not, must, if possible, be covered by skin available or grafted. When skin covering is not obtainable, fine mesh vaselined gauze may be used. If the wound is seen, or has been cleansed within six hours from the time it was created, various operative procedures as part of primary operative treatment may be carried out. We have had two cases — and only two — in which, with marked loss of tissue including loss of bone and loss of nerve tissue and loss of muscle and tendon tissue, we have carried out quite extensive primary operative procedures. In one of these (Mr. J. F. W.) a segment of 4 cm. of ulna was removed, the divided ends held in position with chromic catgut, the separated ends of the fractured radius brought together with a bone plate, two tendons in the forearm repaired, the epineureum of the di-

vided median nerve sutured, and the skin edges were brought together without tension. This man returned to work in February following the July 3rd on which he was injured, with a hand which he felt was quite useful, but in which there was 40 per cent loss of function.

In the second case, no sepsis followed primary operation, but an extensive dissection and nerve suture were necessary, with a fairly good result. At once it is recognized 40 per cent loss of use and fairly good result are not desirable phrases to be used in detailed description of end results. These phrases may be used, however, to describe the man's ability to get back to work and do the work he was doing before the accident happened. So far as the hand and the wrist are concerned, after the wound has been thoroughly cleansed and debrided, we do primary nerve sutures in a small percentage of cases in the presence of bone and tendon injuries. There are many capable surgeons who elect to do primary nerve suturing in a great many cases where tendons are divided and comminuted fractures are present. In clean incised wounds, or lacerated wounds without appreciable loss of tissue substance, we do primary nerve suturing if the gap between the divided ends of the nerve is not greater than 1 to 1.5 cm.; provided this gap can be overcome by mobilization of tissues in the forearm above or by moderate volar flexion of the wrist, the divided ends of the nerve may be brought together with no greater than 1/10 or 2/10 cm. gap between them.

Primary tendon sutures are very frequently done. No attempt is here made to describe various methods of tendon and nerve suturing. There are many treatises available on these subjects. Small metacarpal bone plates may be used in compound metacarpal fractures. Great care must be taken in the use of these plates not to injure the underlying deep palmar arch and the interosseous muscles. We do not use bone plates in either simple or compound fractures of phalanges. In both metacarpal and phalangeal fractures medullary wire may be inserted, but our experience with use of this wire has been limited to a few cases, and therefore our observations are not worth while.

When in the course of primary operative procedures conditions present do not permit

approximation of divided bone or tendon or nerve, it is important to immobilize these structures: Bone with proper splinting and, if necessary, traction wire sutures. Tendon by use of fine wire or silk sutures in the proximal ends with the sutures brought through the overlying skin and tied under a little tuft of gauze. Nerve by insertion of an anchor suture of silk in the epineureum.

A little knot twice the size of the head of a pin is made in a piece of silk thread, the silk is threaded in a fine needle, and two such sutures are introduced a distance of 1 cm., or a little over, in a longitudinal direction on each side of the proximal end of the nerve. The suture is brought out through the epineureum 1/2 cm. proximal to the cut end of the nerve. It is then fastened to a suitable adjacent structure or brought out through the skin and tied over a little tuft of gauze. In cases in which there is considerable doubt as to blood supply and viability of muscle substance or overlying skin, after the wound has been cleansed and anchor sutures in retractable structures have been inserted, when primary skin grafting is not deemed advisable the wound is covered with fine mesh vaselined gauze. In about one-half of the cases, four or five narrow strips of rubber tissues are tucked into the wound, using the eye end of a long skin needle for this purpose.

Never is through and through drainage from one side of the hand to the other or from one lateral margin of a finger to the other, used. When drainage on both sides of a hand or of a finger is deemed necessary, it is best to insert that drainage from both sides rather than a single through and through piece of drainage material which must necessarily come in contact with and produce necrosis of or scarring about important intrinsic structures of the hand. A proper dressing is applied with use of machinist waste or sea water sponges incorporated in the dressing, so that even pressure may be maintained for control of oozing hemorrhage which is noted after removal of the tourniquet. Very rarely should a dressing be applied before releasing the tourniquet.

A splint of some kind is usually a necessity in these cases. It need not be an expensive splint. A number of important matters have

Continued on page 44

*Cancer of the Skin and Orificial Mucosae**

LEON BABALIAN, M. D., Portland, Maine

It seems to me that it might be of interest to present certain cases of Cancer of the skin and orificial mucosae seen at the Tumor Clinic, and to show the Kodachromes of these cases. I am aware that skin cancer is not generally a very serious disease because it is easily diagnosed at its early and curable stage. We must not, however, underestimate its importance. According to recent statistics, from 3,000 to 4,000 patients die yearly in the United States of skin cancer.

It is not my intention to treat the entire scope of the subject. I do want to consider the disease in its early stage, and especially the stages leading up to its appearance; in other words, the "Precancer." This word usually produces contemptuous reactions from the scientists. In fact, they accept the term of "Precancer" only for lesions which contain a seed of cancer; for instance, the blue mole. Please let me use this term in its broadest sense, that of skin disease commonly followed by cancer. It is a useful term and has after all the advantage of being clinically true.

PRECANCER

Though Cancer in general is no longer considered a senile disease, it is nevertheless true that only old skin or skin prematurely old is affected by Cancer.

A) A first example of senile skin is *Cutis Rhomboidalis* which is a lipid degeneration of

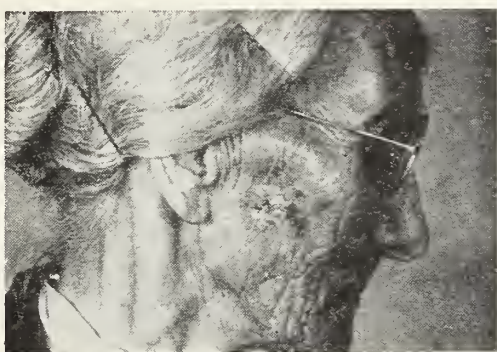


Fig. 1. Intraepidermal cancer developed on a cutis rhomboidalis.

* Read before the Portland Medical Club on November 6, 1945.

the elastic tissue. The skin turns yellow, thickened, and furrowed, divided into rhomboidal fields. On this degenerate skin a cancer may develop—as it has on this picture (Figure No. 1.).

B) *Senile Keratosis*:

The most frequent type of senile skin is what is called Senile Keratosis, a disease affecting essentially the face and the back of the hands, parts of the skin exposed constantly to sunlight injury. The most frequently injured are thin skins of women of fair complexion, especially when unprotected by cosmetics.

First Stage: This kind of skin ages quickly: it grows wrinkled and dry. Permanent freckles and telangiectasies appear. This first stage is called, "Farmer's Skin" or "Sailor's Skin" because very common in these occupations. (Figures No. 2 and No. 5.)

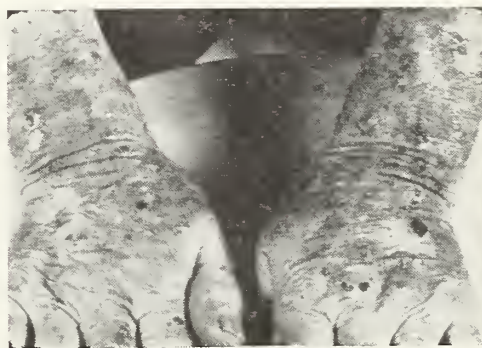


Fig. 2. Farmer's skin complicated with multiple Keratosis and carcinomatosis.

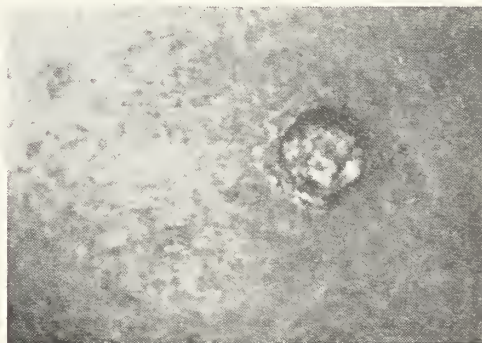


Fig. 5. "Farmer's Skin" and squamous-cell carcinoma developed on the shoulder of an athlete overexposed to sunlight.

Second stage: Appearance of Keratotic spots, a condition utterly banal. It appears as scaly, thickened, flat and grayish spots firmly adherent to the skin and bleeding freely when curetted.

In spite of its commonness, Senile Keratosis is not always easy to diagnose. Sometimes, it is difficult to differentiate between it and Seborrheic Keratosis (*Verruca Senilis*), which resembles a deposit of brown, dirty-looking fat, somewhat verrucous. Unlike Senile Keratosis, Seborrheic Keratosis remains nearly always benign and is X-ray resistant. Treated by electro-coagulation, it does not bleed as does Senile Keratosis, but becomes detached from the skin, as if peeled.

Third stage: Sometimes a third stage appears before the real cancer. This stage is called "Bowen's Disease." Forget the name, if you please, but keep in mind that you should recognize these precancerous conditions when you find lenticular red, scaly, psoriasis-like spots of long standing,—spots which unlike Psoriasis bleed freely when curetted. But, sometimes, it is very difficult to differentiate Bowen's Disease from Psoriasis. (Figure No. 3.) Sometimes, also, the disease closely re-

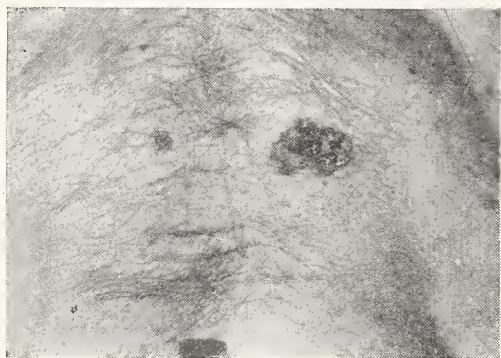


Fig. 3. Bowen's Disease developed after arsenical treatments.

sembles Lupus Erythematosus. If, in doubt, biopsy is indispensable.

Fourth stage: There is sometimes another precancerous stage: "Paget's Disease." I do not talk here of Paget's Disease of the nipple, which is no longer considered a skin cancer, but a cancer of the mammary glands. I talk only of the extramammary Paget's Disease. As in Bowen's Disease, you find a red, well-circumscribed spot. But Bowen is a dry, scaly, psoriasis-like lesion, whereas Paget is a wet, oozing,

eczema-like lesion. Biopsy is indispensable to establish firmly this diagnosis.

In this senile precancerous degeneration of the skin I have considered four stages: Farmer's Skin, Senile Keratosis, Bowen's, and Paget's Diseases. In fact, this division is purely theoretical in order to review the different aspects of the subject. Don't believe that cancer is inevitably preceded by these four stages. Far from it, definite cancer can appear directly on an apparently normal skin.

In addition, pathologists today consider Bowen and Paget real intra-epidermal cancer. In their opinion, the stage is set.

C) *Leukoplakia*:

All conditions of lips which are whitish or apt to turn white are called Leukoplakia, a vague term which includes such different affections as Senile Keratosis of the lips, oral lichen planus, oral psoriasis, leukokeratosis of the mucosae which accompanies palmo-plantar keratoderma, etc. Consequently, Leukoplakia is not a disease, but a syndrome only. Whatever may be their exact nature, all these cases need the following routine care: (a) Extraction of decayed teeth; (b) well-fitted denture; (c) forbidding of smoking—and that for three reasons: smoking is a chronic burn; smoking tobacco is a tar distillation; tobacco contains a dangerous arsenic. We all agree on the necessity of this care, but it is obvious that that is only a part of the truth and not the whole truth. Today, women smoke as much as men, if not more. Why is Leukoplakia so rare in the mouth of the woman and so common in the mouth of the man? When a woman develops Leukoplakia, it is not generally in her mouth, but on her vulva, especially if the vulva presents signs of senile degeneration announcing the Kraurosis Vulvae. (Figure No. 4.)



Fig. 4. Vulvar Leukoplakia with intraepidermal carcinoma.

PROVOCATIVE FACTORS OF PRECANCER

A) *Sunlight:*

I have emphasized Senile Keratosis because it is very frequent and related to this very important factor of skin cancer: Injury by sunlight. (Figure No. 5.)

Very rarely is sunlight injurious to young skin. Some children, — fortunately few of them, are ultrasensitive to sunlight. The result may be the terrible disease called Xeroderma Pigmentosum with its four stages: erythroderma, dryness and freckles, atrophy of the skin with telangiectasies and keratosis, and finally cancer. These patients seldom reach adult life. (Figure No. 6.)



Fig. 6. Xeroderma Pigmentosum.

B) *X-ray:*

Radiodermatitis is frequently a cause of cancer, passing through the same stages we have seen in Senile Keratosis and Xeroderma pigmentosum: Erythema and atrophy; pigmentation and telangiectasies; necrosis, which sometimes may appear two or three years after X-ray treatment; and finally, definite cancer of any type. It is often of a comparatively low grade of malignancy. Anyway, it needs adequate and prompt treatment. (Figure No. 7.)



Fig. 7. Chronic Radiodermatitis.

C) *Arsenic:*

Among the provocative factors of cancer, arsenic is perhaps the most dangerous because widely used and not recognized. Lead arsenate is sprayed today on orchards, vineyards, fields of tobacco, and can be even found in pastures. Latent arsenicism by vegetables and fruits is no longer unusual. Above all, arsenic is contained in many medications, especially the too commonly used Fowler's Solution.

Speaking of arsenical medications, you may be interested to know if anti-syphilitic arsenicals are carcinogenetic. The great majority of scientists agree that organic arsenic (trivalent or pentavalent) and especially the anti-syphilitic arsenicals, are not provocative of cancer. Since the discovery of Ehrlich, we have had the opportunity of seeing many cases of arsenical dermatitis. Not one of these to the best of my knowledge has been mentioned as degenerating into cancer. What causes cancer in syphilis? It is not the treatment, but the disease itself when untreated or inadequately treated,—for which statement abundant proof exists in medical literature.

As to inorganic arsenic, it is a real danger, as you can see by this case. (Figure No. 3.) This patient, 70 years old, has had chorea since first childhood. This chorea was treated with Fowler's Solution for a few months and with pills, in all probability arsenical. This patient started fifteen years ago to develop arsenical Keratosis on his palms. (Figure No. 8.)



Fig. 8. Arsenical Keratosis.

Later, psoriasis-like spots of Bowen's Disease appeared on his body, spots which were considered psoriasis and unfortunately treated as such with tar and Violet-Rays. Finally, a multiple superficial Carcinomatosis appeared. The amount of arsenic in these lesions was not

analyzed, but, in all probability, this multiple Carcinomatosis is of an arsenical nature.

Several similar cases have been described recently in literature, some of them complicated with cancer in the urethra and bladder.

D) *Tar:*

Among the provocative factors of Cancer, tar is one of the most important. Repeated paintings of the ear of the mouse or the rabbit with tar produces a cancer in six months (i.e. one-quarter of the life span of the rodent). (Figure No. 9.)



Fig. 9. Provoked tar cancer on rabbit's ear.

Tar cancer in man has been described in the old days on the scrotum of chimney sweeps. Today there are no longer chimney sweeps, but workers exposed to tar or by-products may develop cancer on their hands and also on their scrotum. The duration of the induction of tar cancer in man is 15-20 years (i.e. one-quarter of man's life span). (Figures No. 10 and No. 11.)



Fig. 10. Tar cancer of the scrotum in a stoker. (Cast of St. Louis Hospital, Paris.)

What about tar ointments used in dermatology? They are all supposed to be rich in anthracene oils, which are precisely the most carcinogenic among the many tar carbides. It



Fig. 11. Multiple carcinomatosis on forearm of a worker exposed to tar oil. (Cast of St. Louis Hospital, Paris.)

is possible that the ointments might be a cause of cancer if they were applied for several years on the skin. At least, they sensitize the skin to the sunlight, and on the ground, may be considered as provocative of cancer.

E) *Infections:*

Infections may provoke cancer. I have already spoken of the role of Syphilis in cancer; so, I will not repeat. Another important skin infection is Tuberculosis, and especially Lupus Vulgaris. One case has been seen recently at the Tumor Clinic. For years, the patient has had on his face a red, painless, well-circumscribed patch, apparently inactive and sparkled with deep-seated apple-jelly nodules, very apparent under glass pressure. A few weeks before his admission to the Tumor Clinic, his lesion presented an unusual activity, with swelling of its borders. A biopsy showed that this case of Lupus was complicated with cancer. (Figure No. 12.) That means a sombre prognosis. The best treatment in such a case is wide surgical excision when possible.



Fig. 12. Lupus Vulgaris complicated with cancer.

F) *Combination of Several Factors:*

Sometimes cancer is caused by several factors, as is common in Psoriasis of long stand-

ing, generally overtreated with Fowler's Solution, Tar Ointment, sunbaths, Violet-Ray, and X-ray. Among the different treatments for Psoriasis, one seems particularly dangerous if too often repeated, the Goeckerman Method, which combines tar ointment and Violet-Ray exposures. In fact, it is about the same method as that used on mice in certain laboratories where provoked cancer is studied. One patient treated for years for Psoriasis was seen recently at the Tumor Clinic. He developed multiple Carcinomatosis from which he finally died. (Figure No. 13.)



Fig. 13. Squamous-cell carcinoma developed on overtreated psoriasis.

CONFIRMED CANCER

I went into details on the subject of Pre-cancer which I consider the more important. I will be brief on the subject of confirmed can-

cer. There are two principal types: (a) Basal cell Carcinoma, (b) Epidermoid Carcinoma (Squamous cell Carcinoma). Sometimes there is a combination of both.

A) *Basal Cell Carcinoma:* (Figure No. 14.)

It affects essentially skin and very rarely mucous membrane. It progresses slowly and never invades lymphatic or blood vessels. Consequently, it never metastases. But it has a local malignancy due to abundant multiplication of cancerous cells.

Sometimes it is a small semitranslucent nodule resembling mother of pearl and showing dilated blood vessels. These telangiectasies are very important in the diagnosis of Basal Cell Carcinoma.

Sometimes it is a large nodule composed of agglomerated pearls with a slight central ulceration.

In other cases, an ulceration with "rolled pearly border" appears. Don't believe that this rolled edge is found in basal cell Carcinoma only. It is sometimes seen in epidermoid Carcinoma. Even in non-cancerous ulceration, especially syphilitic ulcer, at the stage of active epidermisation, a rolled edge may be seen which could be confused with the pearly edge of cancer.



Fig. 14. Several types of Basal-cell Carcinoma.

Finally, a deep-ulcerated basal-cell Carcinoma, the so-called Rodent Ulcer, can be found. (Figure No. 15.)



Fig. 15. Rodent Ulcer (Basal-cell Carcinoma).

Basal Cell Carcinoma are easily cured. They are highly X-ray and radium sensitive, but of course, at the advanced stage of rodent ulcer no therapy is easy.

B) *Squamous Cell Carcinoma:*

Epidermoid Carcinoma is quite different. Here there is little or no local malignancy. Consequently, no telangiectasies, no mother-of-pearl nodules, and generally no rolled edge. But the condition is more serious because this type of cancer invades lymph nodes and metastases are always found after a more or less prolonged induction. This kind of cancer is essentially that of the lips, the vulva, and the penis, where it appears generally under the form of sharply circumscribed and indurated ulcerations or smooth, crusted, verrucous lesions. Its degree of malignancy is estimated in four different grades according to the pathological features. Whatever may be its grade of malignancy, its radiosensitivity is not as noticeable as that of Basal Cell Carcinoma. (Figures No. 16, 17, 5, 13.)



Fig. 16. Squamous-cell Carcinoma.



Fig. 17. Squamous-cell Carcinoma of penis.

TREATMENT OF PRECANCER AND CANCER

Precancer can be treated effectively by electrocoagulation, X-ray, radium, or surgical excision. Electrocoagulation is first choice because simple, easy, inexpensive, and efficacious. If this method has been criticized, it is because it has been too often used by physicians with insufficient experience concerning its technique and limitations.

As to Confirmed Cancer, there is a difference of opinion. One after another, authors praise X-ray, radium, surgery. X-ray and radium are generally preferred because of their good cosmetic results. They are also preferred for the very aged who cannot run the risk of an operation. Neither of these methods, however, can be used in the proximity of bones and cartilages without danger of necrosis. Even given by the most skilled, they can cause lingering and painful radiodermatitis which later might necessitate large surgical excision. Therefore, there is a tendency to go back to surgery, especially since techniques of plastic surgery become more and more widespread.

I will not discuss rare tumors such as Sarcoma, angiosarcoma, etc. They are not of practical interest. I prefer to say a few words on these congenital malformations of the skin called Nevi, and their possible change into malignancy. I will consider successively vascular nevi (Hemangiomas) and non-vascular nevi (moles).

HEMANGIOMAS

Hemangiomas (birthmarks) are of three kinds: the flat (Port Wine Mark), the hypertrophic (Strawberry Mark), and the cavernous. The benignity of their evolution is usual. They seldom, if ever, develop into malignancy. Cases of malignant Hemangioma complicated

with metastases which have been reported are in reality cases of Angioplasic Sarcoma, a different kind of growth, the malignancy of which is established from the beginning.

NONVASCULAR NEVI

These Nevi, or moles, are of two kinds: elevated and flat.

A) *Elevated Nevi*:

These are of several types: Nevus molluscum, soft mole, hairy soft mole, pigmented soft mole. They practically never become malignant. However, one should be cautious in the presence of a pigmented soft mole, which is related very closely to the pigmented flat Nevus, a really dangerous form of mole. As to the hairy soft mole, "Of Affleck's 266 melanomas which developed from nevi, none was from a hairy nevus." (Sutton & Sutton). Although I do not like to treat these hairy moles, I do not believe that we can always refuse to coagulate and epilate them in the fear of a potential malignancy, which in fact does not exist.

B) *Flat Nevi*:

These are composed of the following types: Achromic Nevus, Liver Spot, Ephelides (Freckles), Lentigo (Beauty spot), Malignant Lentigo, Blue Nevus. Achromic Nevus and the Liver Spot never degenerate into cancer. Freckles are of the same benign nature, and the freckles described in the dangerous Xeroderma Pigmentosum have nothing in common with common freckles.

With Lentigo and Blue Nevus, the picture changes entirely. The danger is real and very serious. "Increase in size, increase in pigmentation, and irritability—these three symptoms singly or together are the early evidences of change from benign to malignant state." This potentiality becomes a reality in case of trauma and irritation. Inadequate destructive treatment, repeated trauma on the face due to the razor, repeated trauma of the sole, due to walking, are all dangers which should not be underestimated. Lentigo of the sole is so dangerous that it should be destroyed in infancy when possible.

When these nevi become malignant, they turn into Melanocarcinoma. The blue nevus, however, is the only one which can develop into a melanosarcoma, a very malignant and, fortunately, very rare complication.

To summarize: we can say that the flatter and more pigmented a nevus is, the greater the possibility of its developing into malignancy. As for the other types—the danger of malignancy, if it ever exists, is greatly exaggerated. Doubtful cases should be treated with no delay with large "basket-like electrocoagulation" (coagulation from periphery to center) and with no regard to the aesthetic result.

WARTS AND CONDYLOMAS

Before closing, I would like to say a few words on warts and condylomas. Some of them having become malignant bring up the question once more of the relation between virus diseases and cancer. Practically, neither wart nor condyloma develop into cancer. According to some authors, the lesions which turn cancerous are not real warts but are a very rare affection: Epidermodysplasia verruciformis. This latter affection can be recognized by the following characteristics: (1) It is congenital and as such appears in the early years. (2) It is often generalized. (3) It resists all treatment. (4) Its cells present a special lesion, the "cavitary degeneration." In fact, not one of these signs clearly differentiates this affection from the banal wart, not even the cavitary degeneration which can be found in both lesions and which highly suggests a virus infection.

I am far from having exhausted the subject. Before concluding, I would like to warn patients and physicians against all kinds of Cancerophobia. However, in case of danger, patients should be informed.

In this day and age, when young and old indulge in sunbaths, the danger of over-exposure to sunlight and its prevention should be emphasized.

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The President's Page

To the Members of the Maine Medical Association:

A few of our confreres in the sister states of New England, have strongly intimated and even stated to me that the Maine Medical Association has been slow in the consideration of Prepayment Voluntary Insurance Plans. They think, too, we are not interested in the prevention of the passage of the Wagner-Murray-Dingell Bill. I guess we must admit the allegation for we have moved slowly.

Dr. Herlihy of Bangor and Dr. Drake of Portland attended the recent meeting of the National Physicians' Committee in St. Louis and came back enthused and stimulated. They feel that we should heartily back this organization and recommend that we doctors should contribute to this worthy cause — to defend our rights of practice. They advise too, that we write immediately to our Senators and Congressmen and register our protest against Socialized Medicine. Ask your friends and patients to do likewise.

A Committee has been named to study the Prepayment Medical Insurance Plan and they will report soon — that we may have ample knowledge of the proposition at the time of our annual meeting in Poland Spring.

The other New England States have insurance plans,—New Hampshire, to me, seems to be the most sensible and business-like of all — If we should follow suit — let's do it — and not let things lag. Whatever we do — leave the Osteopaths out of it!

ADAM P. LEIGHTON, M. D.,
President, Maine Medical Association.

Editorials

Annual Meeting

Attention is again called to the annual meeting of the Maine Medical Association to be held at Poland Spring, Maine, June 23rd, 24th, and 25th. It is our first regular session in two years, and it is hoped that a large number will be present.

An excellent clinical and scientific program is being formulated. The papers to be presented will be timely and instructive and will be open for discussion. One of the guest speakers will be Dr. H. Clifford Loos, of the Ross-Loos Medical Group Clinic of Los Angeles, California.

The program Sunday evening will be given over to welcoming Medical Officers returned

from Military Service. For these doctors this meeting will be an opportunity to renew old friendships.

The annual banquet Tuesday evening will be under the jurisdiction of Dr. Adam P. Leighton, President of the Association, and will be one of the highlights of the meeting.

There never was a time when the problems facing organized medicine were of such prime importance as they are at present. Several problems of interest to the Association are slated to come up for consideration at the meeting of the House of Delegates. It is, therefore, important that all delegates make an effort to be present to discuss these matters.

Council and Scientific Committee Meeting

A meeting of the Council and Scientific Committee of the Maine Medical Association was held at the office of Dr. Adam P. Leighton, Portland, Maine, Sunday, February 3, 1946.

Dr. Ralf S. Martin, Chairman of the Scientific Committee, and members of his committee gave an outline of the clinical and scientific program for the annual meeting in June.

A special committee was appointed to investigate Prepaid Medical Service Plans, and re-

port to the next meeting of the Council which will be held in Augusta, Maine, March 31, 1946. Dr. Edward L. Herlihy, of Bangor, Maine, was named Chairman of this Committee.

The Secretary of the State Association was instructed to procure Fifty-Year Service Medals for the physicians eligible for Honorary Membership in June. These medals will be presented at the annual meeting.

Members Released from Military Service

The following is a list of Maine physicians released from Military Service according to information received at the office of the Maine Medical Association since the listing in the January issue of the JOURNAL. As additional names will be published each month, we again urge members to report to the Secretary of the Maine Medical Association upon their release from active duty.

Cumberland County Medical Association:

Branson, Sidney R., South Windham

Kennebec County Medical Association:

McLaughlin, Ivan E., Gardiner
Metzgar, John G., Augusta

York County Medical Society:

O'Sullivan, William B., Biddeford
Richards, Carl E., Alfred

COUNTY SOCIETIES**Androscoggin**

President, Romeo A. Beliveau, M. D., Lewiston
Secretary, Leroy C. Gross, M. D., Auburn

Aroostook

President, Clyde I. Swett, M. D., Island Falls
Secretary, Thomas G. Harvey, M. D., Fort Fairfield

Cumberland

President, Elton R. Blaisdell, M. D., Portland
Secretary, Joseph E. Porter, M. D., Portland

Franklin

President, Albion E. Floyd, M. D., New Sharon
Secretary, George L. Pratt, M. D., Farmington

Hancock

President, Raymond E. Weymouth, M. D., Bar Harbor
Secretary, James H. Crowe, M. D., Ellsworth

Kennebec

President, Arch H. Morrell, M. D., Augusta
Secretary, M. Tieche Shelton, M. D., Augusta

Knox

President, Howard L. Apollonio, M. D., Rockland
Secretary, Freeman F. Brown, Jr., M. D., Rockland

Lincoln-Sagadahoc

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Oxford

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Secretary, J. S. Sturtevant, M. D., Dixfield

Penobscot

President, George B. Weatherbee, M. D.,
Hampden Highlands
Secretary, Forrest B. Ames, M. D., Bangor

Piscataquis

President, Ralph C. Stuart, M. D., Guilford
Secretary, Norman H. Nickerson, M. D., Greenville

Somerset

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Secretary, Maurice E. Lord, M. D., Skowhegan

Waldo

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Secretary, R. L. Torrey, M. D., Searsport

Washington

President, John F. Hanson, M. D., Machias
Secretary, John Young, M. D., Jonesport

York

President, Carl H. Richards, M. D., Alfred
Secretary, C. W. Kinghorn, M. D., Kittery

County News and Notes**100% Paid Membership for 1946****Piscataquis County Medical Society****Cumberland**

William Holt, M. D., of Portland, Maine, was elected President of the Maine Cancer Society of Maine, Inc., at a meeting held in Augusta, January 9, 1946.

Hancock

A regular meeting of the Hancock County Medical Society was held at the Hancock House, Ellsworth, Maine, Wednesday evening, January 9, 1946.

Following a short business meeting, Silas A. Coffin, M. D., of Bar Harbor, spoke on *Chest Wounds*. This was followed by a period of general discussion.

J. H. CROWE, M. D.,
Secretary.

Kennebec

The annual meeting of the Kennebec County Medical Association was held at the Augusta State Hospital, Augusta, Maine, Thursday, December 20, 1945. The members of the Association were dinner guests of Dr. Forrest C. Tyson.

Immediately following an excellent dinner the meeting was called to order by the President, Dr. Thomas C. McCoy, and the following Officers were elected for the year 1946.

President, Arch H. Morrell, M. D., Augusta.

Vice President, Frank B. Bull, M. D., Gardiner.

Secretary-Treasurer, M. Tieche Shelton, M. D., Augusta.

Councilors: F. C. Tyson, M. D., H. E. Small, M. D., and C. E. Towne, M. D.

Delegates to the Maine Medical Association: A. J. Gingras, M. D., Augusta; Clarence R. McLaughlin, M. D., Gardiner; and Thomas C. McCoy, M. D., Waterville. Alternate: Clair S. Bauman, M. D., Waterville.

Leverett D. Bristol, M. D., Commissioner of Health and Welfare for the State of Maine, was elected a member of the Association.

Charles E. Towne, M. D., of Waterville, speaker of the evening, spoke on his experiences as an army surgeon in the South Pacific. He gave a very interesting talk illustrated with pictures taken at the scene of action.

M. TIECHE SHELTON, M. D.,
Secretary.

Continued on page 40

Wyeth

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A USEFUL LAXATIVE—Cascara Petrogalar combines the mild stimulating action of cascara with the softening effect of homogenized mineral oil. Prompt, easy evacuation of soft, formed stools is assured without undue strain or discomfort. Especially useful in treating stubborn cases and in elderly persons, its pleasant, dependable action helps to restore "habit time" of bowel movement. **CASCARA PETROGALAR**—an aqueous suspension of Mineral Oil, 65%, with aqueous extract of Cascara Sagrada, 13.2%.



Supplied in 8 fl. oz.
and pint bottles

Charles E. Towne, M. D., of Waterville, Maine, was recently nominated Medical Examiner for Kennebec County by Governor Horace A. Hildreth. He will succeed his uncle, John G. Towne, M. D., who resigned after serving in that capacity for many years.

Frederick T. Hill, M. D., of Waterville, Maine, has been renominated to the Advisory Council of the State Health and Welfare Department by Governor Hildreth.

Penobscot

The Penobscot County Medical Association at a meeting held at the Bangor House, Bangor, Maine, Tuesday evening, January 15, 1946, went on record in protest of the Wagner-Murray-Dingell Bill on socialized medicine and voted to communicate the protest of the association to the Maine delegation in Washington.

Dr. George B. Weatherbee of Hampden, president of the association, presided over the business meeting at which Dr. C. E. BoDine, who has recently opened practice in Bangor, was elected to membership.

Dr. Manson Meads, a research fellow in medicine at Harvard Medical School and chief resident at Thorndike Memorial Laboratory, Boston, was the speaker of the evening. Taking for his subject *Antibiotics*, Dr. Meads gave an unusually brilliant discussion on the uses of penicillin and a newer antibiotic Streptomycin. He told of the use of these drugs in different diseases, the dosages, and the results to be expected. He said that Streptomycin is not yet on the market, being a very difficult drug to manufacture, but that it had been used in limited amounts by the Army with success.

Attendance, 38.

FORREST B. AMES, M. D.,
Secretary.

Somerset

At a meeting of the Somerset County Medical Society held October 28, 1945, the following Officers were elected:

President, Richard P. Laney, M. D., Skowhegan.

Vice President, Maurice S. Philbrick, M. D., Skowhegan.

Secretary-Treasurer, Maurice E. Lord, M. D., Skowhegan.

Censors: L. F. Norris, M. D., W. S. Milliken, M. D., and W. H. Walters, M. D.

Delegates to the Maine Medical Association: Dr. Laney, and George E. Young, M. D., Skowhegan. Alternate: Walter S. Stinchfield, M. D., Skowhegan.

MAURICE E. LORD, M. D.,
Secretary.

York

The annual meeting of the York County Medical Society was held at the Kennebunk Inn, Kennebunk, Maine, January 9, 1946, at 1.00 P. M.

A fine steak dinner was served following which the meeting was called to order by the President, Dr. Harry L. Prescott.

The following Officers were elected for 1946:

President, Carl E. Richards, M. D., Alfred.

Vice President, Oscar W. Perrault, M. D., Biddeford.

Secretary-Treasurer, Charles W. Kinghorn, M. D., Kittery.

Censors: Owen B. Head, M. D., 1946; Joseph R. LaRochelle, M. D., 1947; Gerald R. Smith, M. D., 1948.

Delegates to the Maine Medical Association: James H. MacDonald, M. D., Kennebunk; Dr. Richards, and Dr. Kinghorn. Alternates: Paul S. Hill, Jr., M. D., Saco; John J. Murphy, M. D., South Berwick; and Stephen A. Cobb, M. D., Sanford.

Leandre R. Charest, M. D., of Biddeford, was elected to membership.

Resolutions on the death of Clarence E. Thompson, M. D., were drawn up by the Committee on Resolutions.

Adam P. Leighton, M. D., President of the State Association, gave a very interesting talk on the Cults, State law governing same, Socialized Medicine, and the plans for starting a Medical School in Maine. A very instructive discussion followed.

The April meeting will be held at the New Saco House, Saco, Maine.

C. W. KINGHORN, M. D.,
Secretary.

New Members

Kennebec

Leverett D. Bristol, M. D., Augusta, Maine.

Penobscot

Charles E. BoDine, M. D., Bangor, Maine.

York

Leandre R. Charest, M. D., Biddeford, Maine.

Deceased

Cumberland County Medical Association:

Eugene E. Holt, Jr., M. D., Portland, Maine
Died February 2, 1946

Penobscot County Medical Association:

Clayton H. Bayard, M. D., Orono, Maine
Died January 14, 1946

York County Medical Society:

Frederick C. Lord, M. D., Biddeford, Maine
Died January 28, 1946

Necrology

Frederick S. Wakefield, M. D.,
1873-1946

Frederick S. Wakefield, M. D., died at Lewiston, Maine, Monday, January 21, 1946.

He was born at Lewiston, December 10, 1873, the son of Seth D. and Mary E. Wakefield. He attended the Lewiston schools graduating from High School in 1891, and Bates College in 1895. He obtained his medical degree from the College of Physicians and Surgeons, New York City, in 1899. He then interned for a year in the Central Maine General Hospital, Lewiston.

Doctor Wakefield was in general practice in Bridgeport, Connecticut, for four years and then took a special course at the New York Eye and Ear Infirmary. He then located in Lewiston where he practiced his specialty until his death.

He was a member of the Central Maine General Hospital staff and belonged to the American Medical Association, the Maine Medical Association, the Androscoggin County Medical Association, and the old Medical Research Club of Lewiston and Auburn. He was a member of Ashlar Lodge of Masons, the Chapter and Commandery and Kora Temple.

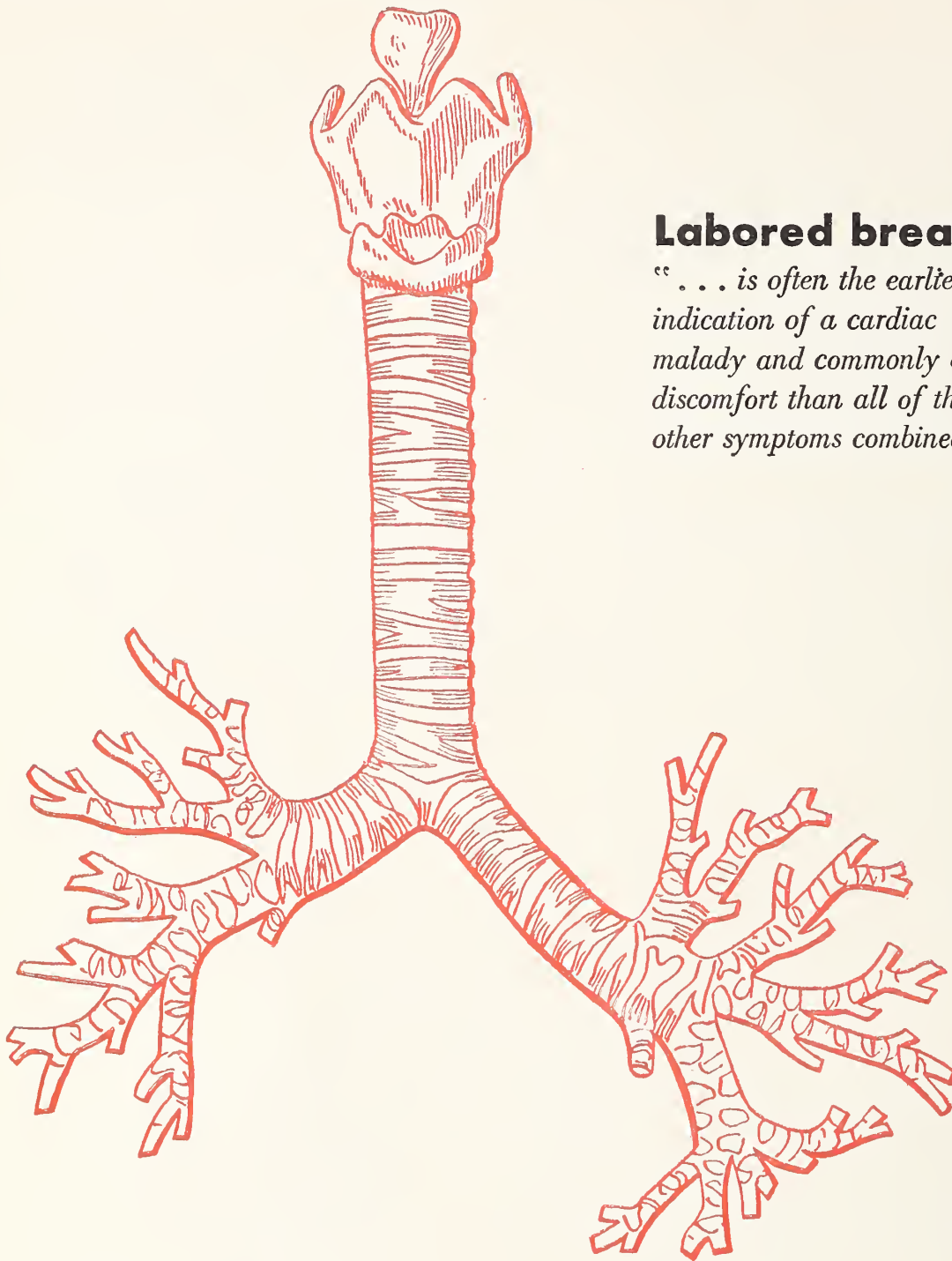
He married in July, 1907, Jane Elia Ker, who survives him.

He was a loyal friend and understood the humanities of his profession as well as the science and practiced both with success up to a week before his death.

HOSPITAL STAFF MEETINGS
Open to the Profession

CITY	HOSPITAL	DATE
Augusta	Augusta General Hospital	1st Wednesday
Bangor	Eastern Maine General	2nd Tuesday
Bath	Bath Memorial Hospital	1st Tuesday
Belfast	Waldo County	2nd Friday
Boothbay Harbor	St. Andrew's Hospital	1st Tuesday
Caribou	Cary Memorial	1st Wednesday
Damariscotta	Miles Memorial	1st Thursday
Lewiston	Central Maine General	1st Monday
	St. Mary's General	2nd Monday
Portland	Maine Eye and Ear Infirmary	1st Wednesday
	Maine General	2nd Friday
	Mercy	3rd Thursday
Presque Isle	Presque Isle General	1st and 3rd Tuesdays
Rockland	Knox County General	1st Monday
Rumford	Rumford Community	4th Wednesday
Sanford	Goodall Memorial	2nd Monday
Waterville	Sisters	2nd Tuesday
	Thayer	Every Thursday

The above list was compiled from a questionnaire sent out by the Maine Hospital Association. Additions or corrections will be made on notification to the Secretary, Maine Hospital Association, Thayer Hospital, Waterville.



Labored breathing...

"... is often the earliest indication of a cardiac malady and commonly causes more discomfort than all of the other symptoms combined."¹

AMINOPHYLLIN-SEARLE, by relaxing the bronchial musculature, encouraging resumption of a more normal type of respiration, reduces the load placed on the heart and helps prevent further damage.

Aminophyllin-Searle is indicated in paroxysmal dyspnea, Cheyne-Stokes respiration, bronchial asthma (particularly in epinephrine-fast cases) and in selected cardiac cases.

Aminophyllin-Searle contains at least 80% anhydrous theophyllin. G. D. Searle & Co., Chicago 80, Illinois.



1. Harrison, T. R.: Cardiac Dyspnea, *Western J. Surg.*, 52:407 (Oct.) 1944.

Notices

The Ophthalmological Study Council

Announces an Intensive Course on the Basic Subjects of Ophthalmology from April 1 to June 1

Executive Officers: Dr. Walter B. Lancaster, Dr. S. Judd Beach, Dr. T. L. Terry, Dr. Trygve Gundesen, Dr. Phillips Thygeson.

Advisers: A large group of prominent ophthalmologists from all parts of the country, headed by the Surgeon General.

The following is a condensed outline of the subjects covered; an extended syllabus is in preparation.

April 1-May 1. Anatomy, Histology, Embryology, Heredity, Bacteriology, Pharmacology, Physiology, Sensory Neuro-Ophthalmology, Perimetry. In the evening, Optics, Physiologic Optics from a practical point of view including Image Formation, Aberrations, Accommodation, Astigmatism and Errors of Refraction.

May 1-June 1. Pathology, Bio-Chemistry, Physiology, Light Sense, Color Sense, Form Sense, Allergy. In the evening, Motor Neuro-Ophthalmology, Ocular Motility, Normal and Abnormal, Strabismus of all kinds, Binocular Vision, Space Perception, Orthoptics.

An adequate faculty is assured: Physiologic Optics by Lancaster, Motility by Burian, Bacteriology by Thygeson, etc.

Fee for two months, \$200; for one month only, taken separately, \$110; for either evening course alone, \$45; for both evening courses, \$80. Other single courses may be taken by special arrangement. If a sufficient number take the course the fees will be lower.

FEES ARE PAYABLE IN ADVANCE

Applicants must have acceptable medical training and ethical standing (membership in County Medical Society). Number not limited. This is not a laboratory or clinical course. Instruction is by lectures, required reading, quizzes and seminars and is preparatory to and in addition to the necessary clinical training in residency or preceptorship.

Apply to Ophthalmological Study Council, 520 Commonwealth Avenue, Boston 15, Massachusetts.

State premedical and complete medical training with dates; also military service, if any, and whether or not a candidate for the American Board of Ophthalmology.

Review Lecture Course for Practitioners and Former Medical Officers

February 18 to May 15

A review lecture course, designed primarily for all practitioners and former medical officers in Greater Boston but available to any licensed physician, has been arranged by the Sub-committee on Postgraduate Medical Education of the Postwar Planning Committee, Massachusetts Medical Society, in cooperation with the Massachusetts Department of Public Health.

Meetings will be held from 5.00 to 6.30 P. M. and from 7.30 to 9.00 P. M. each Monday and from 3.00 to 6.00 P. M. each Wednesday. Each lecture will last thirty to thirty-five minutes, followed by a short discussion period. A buffet supper will be served on Mondays for those who desire it. There will be no registration fee for the course, but the buffet suppers will be charged at cost.

The meetings will be held at Sanders Theatre in Memorial Hall, Harvard University, Cambridge, on both Monday and Wednesday of the first week; thereafter the Monday meetings will continue to be held at Sanders Theatre but the Wednesday meetings may be held elsewhere, in which case advance notice of such change will be made.

Send in your name by mail to Committee on Postgraduate Medical Education, Massachusetts Medical Society, 8 Fenway, Boston 15, Massachusetts. You may leave yourself on call, telephone at Sanders Theatre, Eliot 8013.

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Positions open for Service as District Health Officers, Maine State Bureau of Health. Salary \$4,000 to \$5,000 per year, plus travel.

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Surgical Treatment of Injuries of the Hand
Continued from page 28

been just touched upon in this discussion and have not been dealt with completely or even adequately. Here again no comprehensive description of various kinds of splints and the making of them is attempted. It is important to bear in mind that if a normal hand is placed on a flat straight angle splint and kept there with the palmar surface of the thumb down flat on the splint for two weeks or more, it would take three to four weeks to restore normal functions of the hand. Very frequently some form of cock-up splint should be used. These may be made out of wood or metal with relatively little expense and effort. A small splint for use in treatment of metacarpal fractures may be made by soaking two ordinary throat sticks in a basin of water ten or fifteen minutes. These throat sticks may then be bent into desirable position and held there with a piece of adhesive plaster applied as a string which holds taut two ends of a bow. Splints of lucite or some plastic preparation so treated that they, after soaking in water, may be molded are very serviceable.

In 75 per cent of the cases we see, no extensive operative treatment is undertaken as a primary procedure. Too great emphasis cannot be placed on proper cleansing of the wound; diagnosis of structures which have been injured; insertion of anchor sutures in order to prevent retraction of tendons and nerves; covering tendon with something, viable muscle, or perforated tinfoil, or vaselined gauze; a dressing carefully applied with even pressure on all parts of the wound, and resting the hand comfortably on a splint, are the things we try to do in the primary treatment of these lacerations of the wrist and hand. It may be many physicians would feel that discussion of local application of some sulfa drug preparation should be included in this address. Very rarely have we used any sulfa drug preparation locally. When now considered necessary in certain cases, these preparations are given by mouth or intravenously.

In the great majority of these cases with severe lacerations of the forearm and hand extensive constructive procedures are carried out as a secondary or elective form of treatment rather than a part of primary surgical treatment.

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"There Ought to be a Law!"

Every now and then, when I run out of news for the *Clarion*, I print items about what happened Fifty Years Ago in Our Town. May be a lazy man's way of filling space, but it often makes mighty interesting reading.

Seems like human nature is always repeating itself. Same old prejudices, bickerings, and mistakes. Here's an 1895 politician trying to restrict free speech...a group crying out against vivisection...a local committee raising the bugaboo of Prohibition.

Same old cry down through the years: "There ought to be a law!" Same old desire of one group to force its opinions on another.

From where I sit, it's not more laws we need—nor more restrictions of our right to think, and choose, and live as we see fit. But more tolerance and understanding—more "live-and-let-live" among humankind.

Joe Marsh



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Malaria in the United States

A Historical Review

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INTRODUCTION

It appeared of interest to make a study of the history of malaria in the United States and to compare old and new ideas concerning the disease. This paper presents the subject from a historical aspect as follows:

A NOTE ON EUROPEAN VIEWS AND NOTIONS

ETIOLOGY

MODE OF TRANSMISSION

GEOGRAPHICAL DISTRIBUTION

IN STATE OF MAINE

SYMPTOMS AND SIGNS

MORTALITY STATISTICS

PROPHYLAXIS

TREATMENT

SUMMARY

A NOTE ON EUROPEAN VIEWS AND NOTIONS *

This disease was known to Hippocrates² who divided malarial fevers into several types, (a) intermittent fever of quotidian, tertian, quartan or quintan type, and (b) continuous fevers. Even now, this is quite in agreement with the present classification. Preceding the Hippocratic writings however, malaria was thought to have existed in Palestine, at present a very malarious country. In fact, reference was made in the Bible** to a fever, which now is regarded as having been this disease. Homer³ is said to have made brief mention of a similar fever. Jones⁴ historical researches revealed that malaria was probably endemic in the major part of the Greek Empire, 400 B. C. Empedocles⁵ is supposed to have eradicated the disease from the town of Selinus, in Sicily, in the fifth century by drainage. Cicero⁶ (106 B. C.-43 B. C.) and Horace,⁷ who died in 8 B. C. as well as Livy⁸ are supposed to have given a number of accounts of it.

Celsus,⁹ a Roman left a treatise in 50 A. D. on the occurrence of malaria which also disclosed the antiquity of the disease. There was

* Footnote: For one of the very remarkable accounts of the history of malaria in Europe, it is suggested one refer to Celli's "Storia della Malaria nel Agro Romana." A synopsis of this work has been published under the title of Celli's "Die Malaria."¹

** Deuteronomy 28:22.

a lull for a long time in the advancement of malarial knowledge except for the information learned about drainage which was used in the Campagna 100 A. D. Later, the painter Albrecht Durer,¹⁰ (1471-1528), having become infected with malaria, depicted by means of a painting about 1520 the seat of pain in the splenic region in this disease and furnished a remarkable account of it. Even today, after an intervening period of over 400 years, the diagnosis of malaria may be made from his description.

A most deciding impetus was given to the world in 1638.¹¹ At that time the Countess of Cinchon in Lima, Peru, was afflicted with a tertian fever. This was treated finally and successfully with Peruvian bark by de la Vega. As the result the name of Cinchona was given to this bark as a tribute to the Countess. The success of the drug in this case was responsible for its introduction in the treatment of malaria into Europe. The new world being a new seat of European expansion, little of medical importance was recorded. However, this case remains one of its earliest authentic cases of malaria. As late as two centuries after the introduction of the drug, two French pharmacists, Pelletier and Caventou,¹² succeeded in 1820 in isolating some of the constituents of Cinchona, outstanding of these was quinine.

Gradually more was being learned concerning malaria. Investigations of Laveran,¹³ in 1880, while he was an army surgeon in Algeria, brought forth the discovery of the causative agent of this infection which he found to be a specific malarial parasite. Shortly after, Ross,¹⁴ in 1897, was accredited with the discovery that the mosquito transmitted malaria and was awarded the Nobel Prize for this in 1902. From these accounts it appears that the major discoveries in this field occurred prior to 1900.

ETIOLOGY

The present day conception of malaria is that it is an infectious disease caused by the parasite plasmodium, a protozoan of the class sporozoa and of the order hemosporidia. The plasmodium in man is responsible for the tertian form in the plasmodium vivax; for the quartan form, the plasmodium malariae; and for the aestive-autumnal form, the plasmodium falciparum.

Malaria, so called by Torti¹⁵ in 1753, comes from the Italian "mala aria" meaning bad air. Various names have been given to the disease in the United States. This varied nomenclature included such terms as intermittent fever, remittent fever, periodical fever, continuous fever, marsh miasm and ague. One of the most ancient of theories regarding the causation of malaria involve this same idea of bad air. It was concerned with the opinion that noxious influences of marsh air were associated with the possibility of vegetable decomposition in low and wet places. Hempstead,¹⁶ in 1828, considered hydrocyanic acid as a possible cause of malaria. The first explanation continually gained favor until about the time of Mitchell,¹⁷ 1849, who felt that his contemporary doctors in the United States became dissatisfied with that explanation and wanted proof of its correctness. He considered a "cryptogamous formation from fungi" as being all important.

About this time other theories were proposed. Atlee¹⁸ believed that sulphuretted hydrogen was the miasmatic agent causing malaria. Another group headed by Bartlett¹⁹ believed that the poison causing this periodical fever was malaria or marsh miasm, but that the nature and composition of this poison was unknown. Salisbury,²⁰ in 1866, felt that the cause was attributable to certain vegetable cells and algae of the species palmella found in marshes. Beauchamp,²¹ in 1870, deduced from the similarity between the conditions necessary for the development of malaria and necessary for the natural production of carbonic acid that the latter was the cause of malaria. Such conditions were heat, moisture, animal and vegetable decomposition.

On the other hand, in 1878, McCall²² in agreement with others, favored the parasitic theory believing that the malarial parasites came from plant decomposition. These were thought to be taken up into the system from the atmosphere by inhalation into the lungs or by absorption from the alimentary canal into the blood from drinking water. However, these parasites had never been seen microscopically or proven by laboratory tests. The following year, E. Klebs and Crudelli,²³ presented the idea that malaria was due to an organism which they called "bacillus malariae."

A year later, Laveran,¹³ in 1880, found the

causative parasite of this disease in the blood of malarial patients and observed pigmented bodies in the red blood corpuscles. This important advance was made known first to the American medical profession by Surgeon-General G. M. Sternberg,²⁴ a great pioneer in the study of bacteriology in America. Councilman²⁵ confirmed the results of Laveran clinically and reported sixteen cases in which the blood of malarial patients taken during paroxysms contained the plasmodium. In a later report,²⁶ he also agreed with the work of Marchiafava and Celli,²⁷ who described the presence of an amoeboid organism within the red blood cells as a constant finding in malarial patients. Councilman²⁶ gave them the credit for the discovery of an amoeboid organism, a plasmodium, which they called plasmodium malariae. Osler²⁸ and Dock²⁹ likewise confirmed Laveran's outstanding contributions. Craig³⁰ grouped the various plasmodia with their discoverers. The credit for the naming of the plasmodium malariae went to Marchiafava and Celli, and for the Plasmodium vivax to Grassi and Feletti. Craig further believed that plasmodium falciparum, so called by Blanchard was the tertian form and in 1909, he listed a subspecies, the quotidian plasmodium. In 1923, Stephens³¹ described another definite species known as plasmodium ovale. This summarizes former and present views on the subject of the etiological factors concerning malaria except for the mode of transmission of the disease which shall be discussed presently.

MODE OF TRANSMISSION

The accepted theory today of the important mode of infection and transmission of malaria is by mosquitoes. It is said that Lancisi³² as early as 1717 suggested inoculation by the mosquito as a possible means of infection and attributed the malarial poison to either inorganic or organic emanations from the marsh. Crawford,³³ in 1807, was the first American to favor the animalcular or insect theory of disease. He believed that animalcules excited the disease which assumed a specific form and that the fevers were caused by the appropriate species of these. Also favoring the insect theory of malaria was Nott³⁴ who, according to King³⁵

(1848), suggested that the mosquito of the lowlands was a likely cause of malarial fever and that puncture of proboscidian insects was a probable means by which bacteria and other germs were inoculated into human bodies thus infecting the blood and giving rise to specific fevers. He gave nineteen reasons why he thought the mosquito was associated with this disease and these do not differ materially from the current view. Two of these will be mentioned to convey some idea of his conception: (a) Malaria affects low and moist places as do mosquitoes. (b) Malaria hardly ever develops below 60 F. (15.50) which is the same temperature necessary for development of mosquitoes.

Worthy of mention here is an idea which was presented in Pfeiffer's³⁶ hypothesis. It stated that from the description of Laveran, Marchiafava, Celli and Golgi, it is known that in malarial fever the red blood cells harbor characteristic motile amoeboid bodies which increase in size and bring about destruction of the occupied cell. Then at regular intervals, as a result of segmentation associated with the formation of a residual body, numerous young individuals are produced which in turn give rise to a new generation of blood parasites. Also there exists an exogenous phase which completes itself outside the body, possibly in the body of lower animals (insects) or partly in soil. This exogenous malarial germ could be conveyed to man through air or water or through blood sucking insects as told him by Koch. Powell³⁷ suggested that malaria was essentially a water borne disease and that the organisms found their way into the system through the alimentary canal although it may enter the system by way of the lungs through air. Wilson,³⁸ in 1887, believed that the mode of infection of the irregular forms of malaria was doubtless identical with those of the regular forms although the parasitic origin may not be identical. In addition, he mentioned absorption into the skin as another possible method of entrance. Since the cause was known now, there developed increased activity in attempts to discover the agent of transmission. Although the previous ideas were nearly correct, it was the future investigators who received credit for the actual discovery.

Manson,³⁹ in 1896, and later, Ross,¹⁴ believed

that malaria was an infection. In the former's³⁹ estimation it was possible to trace the infection to the red blood cells of man. He was convinced that the parasite in the flagellate form was in a latent condition in the blood and that a suctorial insect, the mosquito, removed it from the blood. Propagation by the parasite was carried on outside the human body. The latent form was sucked into the stomach of the mosquito; it then developed and penetrated the stomach wall and entered some cell. He believed that man became infected through water impregnated by larvae infested by insects or by inhaling dust which contained hematozoa from dead mosquito corpses which had perished in dry mud holes. Ross⁴⁰ aided by Manson's work was responsible, in the eyes of many writers, for the actual discovery of malarial transmission by mosquitoes. In addition, Bignami⁴¹ demonstrated, about the same time, that mosquitoes and suctorial insects took blood from malarial patients and inoculated others. He also suggested that parasites might be taken from the soil. Koch⁴² held similarly regarding the part played by the mosquito and in addition, he found *Culex pipiens* and *Anopheles* present in infected areas.

These ideas may be summarized briefly by referring to the 1870 proceedings of the Mississippi Valley Association of Physicians⁴³ who concluded that a fall in temperature of 25° F. to 30° F. (between night and day) was necessary for the production of malarial epidemics. If you add to this Ashmead's⁴³ idea that such a fall generates moisture which in turn generates mosquitoes, Ross, Bignami, Manson and Koch could claim the conclusions of the Mississippi Physicians as a clinching point of their arguments. Furthermore, Burns⁴⁴ observed that the responsible mosquitoes were a species of gnats of the genus *Culex* and *Anopheles* and to avoid their stings was to avoid the disease.

Later, Chico⁴⁵ pointed out that other agencies besides mosquitoes possibly transmitted the malaria since in his locality in Mexico, malaria was prevalent in spite of the fact that no *Anopheles* were present. He thought it was traceable to imported fruits.

Briefly, the general conception today of malarial transmission is that the plasmodium finds its way into the body of man through the sting of the *Anopheles* mosquito. The parasite exists

in two forms, one in man who is the intermediary host and suffers malarial symptoms and the other the extra-corporal form which lives and develops in the mosquito, which is the definitive host.

The malarial parasite (plasmodium) goes through a sexual and asexual cycle. The sexual cycle takes place in the mosquito and the asexual cycle in man. Some of the parasites in man undergo sexual development (gametes) and await transfer to the mosquito. After the mosquito feeds upon the infected human, she destroys all asexual parasites (schizonts) which are in preponderance and gives the sexual parasite her entire attention. The gametocytes and crescents (sexual parasites) are thus aberrant forms in the human host and when transmitted to the mosquito serve as the responsible agent in perpetuating the disease. Therefore, the human subjects, who harbor sexual parasites in their blood without showing evidence of the infection as carriers are a menace to health.

Lectures of unusual interest by Hackett⁴⁶ have stated that there are seven distinct types of *Anopheles* eggs and two of these were not present where there was no malaria. There are seven types of *Anopheles* mosquitoes, two of which are man biters. The others are harmless unless there are no animals upon which they can feed. In areas where there are many mosquitoes and little malaria, the mosquitoes are presumably animal biters. Where there is much malaria and few mosquitoes, these are human biters. In reality some are attracted to animals while others are indifferent to the sources of food supply. Although there is no way to distinguish between these seven adults they each have habits not easily lost or acquired and show different biting instincts under similar conditions. The American type of mosquito⁴⁷ is a marsh and stagnant water breeder and decreases in frequency when these areas are drained properly. It takes two weeks of temperature above 60° F. (15.5° C) for malarial germs to mature after the mosquitoes contract it. Every time the temperature falls below 60° F. (15.5° C) the progress of the germ is interrupted. However, it is interesting to find that there are regions in the United States, such as parts of California where the thermometer hardly ever goes below this level, yet malaria is not prevalent there.

Horton and Shute⁴⁸ consider the risk of transmitting malaria by blood transfusion is by no means negligible. McClure and Lam⁴⁹ reported two cases conveyed by blood refrigerated five days. Rubenstein and associates⁵⁰ tell of twelve cases of post transfusion malaria since 1929 in Massachusetts and state that all but three were due to the quartan type. It is likely that there will be an increase in post transfusion malaria if blood of veterans returning from malarious areas is to be used. Malaria in drug addicts due to inoculation with hypodermic needles has been recognized since 1929 according to Schoenbach and Spingarn⁵¹ who give a review of such cases and describe two cases of their own occurring in this way. Another way in which this infection may be propagated is by way of placenta from mother to fetus according to Chen, Tang and Wang⁵² who had a case of this type to report.

GEOGRAPHICAL DISTRIBUTION

It is a moot question as to when and where malaria made its first appearance in the United States since little had been written of the disease in the days of colonization. From May to September, 1607, at Jamestown, Virginia, fifty of one hundred and five colonists died, yet Captain John Smith,⁵³ the leader of the colony, gave no attributable cause for this in his writings. However, malaria might well have been an important cause of these deaths considering the situation of this settlement and the time of the year as suggested by Boyd.⁵⁴

The first appearance⁵⁵ of the disease in New England dated back to 1634 when it occurred in Eastern Massachusetts. Since this was shortly after the arrival of the Pilgrims and others to this part of the country, it might be assumed that the disease was brought in from Europe by them. Shortly after there were epidemics in 1647, 1650, and 1668, as revealed by Quinn⁵⁶ and these probably had a similar origin as the earlier ones. The southern coastal areas of the southern colonies were found to be unwholesome and as early as the beginning of the eighteenth century fevers of remittent and intermittent types were common. The importation of slaves from Africa commenced about this time and this possibly was an important factor in the dissemination of the disease in the south. Since these afflicted areas were conducive to the viability of the mos-

quito, it is quite possible that it too was brought here by incoming ships.

With the expansion of people into the Mississippi Valley in these early days, it was found that chills and fevers accompanied the pioneers even to the borders of their territorial possessions. The disease receded from the northern part of the valley but remained in the southern part with some decrease in prevalence. The manner in which this disease spread was probably through the people traveling from one region to another. Malaria followed in the footsteps of western expansion, to the north and south. However, when people became settled, living conditions improved and insalubrious places were made salubrious and as the result malaria decreased. This was also true of the progress of the disease in the central, western, and New England states. Nevertheless, it pertained to the southern states only to 1931. It was quite likely that the depression was responsible for this in a large measure because people became impoverished and the past work which had been carried on was neglected or discontinued. Parts of this section were considered inferior to live in as compared with other portions of the United States, chiefly because of lowlands. However, with a gradual return to prosperity there was a subsequent diminution in malaria after 1935.

Previous to 1910, the disease was encountered with some frequency in southern New England, in parts of Pennsylvania and New York, and with greater frequency in the southeastern portion of the country. In the latter region those states especially affected were Maryland, Virginia, Carolinas, Georgia, Florida, and the area along the Mississippi River, including Arkansas. Further West many foci were found in Texas, Louisiana and New Mexico. However, in the central states malaria was infrequent except in low lying valleys along the rivers. The Great Lakes areas, with the exception of the territories near Lake Erie and Lake Michigan, reported very few cases as did the Pacific Seaboard which consists of parts of Washington, Oregon and California.

In recent years, the vast majority of cases have appeared in the southern part of the country. This was clearly demonstrated in a most interesting report⁵⁷ issued by the Metropolitan Life Insurance Company which showed that

about 97 per cent of all malaria cases since 1931 in the United States have occurred in the southeastern section of the country. This includes Missouri, Arkansas, Louisiana, Mississippi, Florida, Tennessee, South Carolina, Georgia, Alabama, Texas, Oklahoma, Kentucky, and North Carolina, and excludes possibly Texas.

In order to illustrate the comparative incidence of malaria over a period of years in hospitals located in malarious and non-malarious districts I have selected two institutions. One hospital located in a practically non-malarious area is the Massachusetts General Hospital in Boston, Massachusetts, which has a capacity of approximately 425 beds. They²⁰¹ have kindly furnished me the number of cases of malaria which have occurred in that hospital. These figures are given in Table 1 and show how the incidence of disease has decreased and how few cases have occurred in recent years in such a hospital.

Table 1. *Cases of Malaria at the Massachusetts General Hospital Per Five-Year Period*

<i>Years</i>	<i>Number of Cases</i>
1874-1878	40
1879-1883	59
1884-1888	87
1889-1893	140
1894-1898	265
1899-1903	208
1904-1908	85
1909-1913	70
1914-1918	38
1919-1923	19
1924-1928	9
1929-1933	10
1933-1937	16
1938-1942	6
1943-1945	7

In comparison the second hospital is the Charity Hospital with a capacity of approximately 2,050 beds situated in New Orleans, Louisiana, a malarious region. The data, which they⁵⁸ have furnished is given in Table 2, and

illustrates the high and increasing incidence of malaria in a southern hospital in such a district up to 1935 and a subsequent decrease from then up to 1945.

Table 2. *Total Number of Cases of Malaria Admitted to the Charity Hospital of Louisiana at New Orleans, from January 1, 1921 through December 31, 1945*

<i>Years</i>	<i>White</i>	<i>Colored</i>
1921-1925	348	86
1926-1930	462	99
1931-1935	1,723	458
1936-1940	963	329
1941-1945	43	13

The increase in the incidence of malaria which has taken place in certain southern states as an aftermath of the depression has been attributed to various factors. These include the general impoverishment of the people which restricted or prevented the purchase of quinine in many instances and also the lack of state funds to continue quininization programs. Unfavorable climatic conditions characterized by severe draughts followed by heavy rainfalls during these years have been thought to be a cause for this increase. The subsequent decrease after 1935 noted in above Table may indicate the gradual return to prosperity in this area with more money to spend for anti-malarial program.

IN STATE OF MAINE

Malaria does not appear to be a public health problem in the State of Maine. A recent letter⁵⁹ from the Department of Health and Welfare at Augusta states that they have no record of any cases of malaria acquired within the state. Practically all the cases reported since the beginning of World War II are men who were infected overseas. The following Table 3 records the number of cases reported from 1910 to 1936 and yearly from 1936 to 1945 with the death rate per year for this latter period.

Table 3. *Cases of Malaria and Death Rate in State of Maine from 1910 to 1945*

<i>Year</i>	<i>Cases</i>	<i>Deaths</i>
1910-1936	11	
1936	3	0
1937	4	1
1938	0	0
1939	1	0
1940	2	1
1941	1	0
1942	3	1
1943	4	1
1944	4	1
1945	28	1

As will be seen from the above table there was a sizeable increase in the number of cases in 1945. This was apparently due to the return of increasing numbers of veterans from infected areas.

SYMPTOMS AND SIGNS

Although the symptoms and signs of malaria have been recognized for centuries nothing especially new has been discovered in this connection in the United States. However, malaria in its typical form is a chronic disease with a striking clinical picture in which there occur recurrent paroxysms of fever during which the temperature may range from 103° F.-107° F. (39.4-41.7° C). Between these paroxysms there is a variable afebrile period with partial recovery. Objectively the patient shows anemia and splenomegaly. The most noticeable clinical difference between the fevers produced by the different species of the malarial parasites is the period of time elapsing between the febrile paroxysms. The established intervals are twenty-four hours for the quotidian type, forty-eight hours for the tertian type and seventy-two hours for the quartan variety. There may be a double tertian infection in which the paroxysms occur daily. The quartan infection may be double or triple. In the former there are two paroxysms followed by a day of intermission and in the latter there is a daily paroxysm. There may be mixed infections such as the tertian type with a quartan variety, etc.

A typical paroxysm lasts 10-12 hours and consists of cold, hot and sweating stages which

follow one another in orderly sequence and last less than one hour, several hours and two to four hours, respectively. There is a definite aura usually preceding the chill in which the patient has headache, yawning, lassitude and even nausea and vomiting at times.

Splenomegaly accompanies 95 to 100% of persons infected with malaria according to Ross⁶⁰ but the enlargement is great enough to be palpated in 75-95% of cases. The spleen increases in size even with the first attack of fever. It recedes with the first apyrexia but repeated attacks of fever cause it to get successively larger. When however, the patient recovers from malaria the spleen usually returns to normal. Since splenomegaly is a constant finding in malaria it was interesting to note what change might result in the reaction to malaria if the spleen were absent. Ingalls⁶¹ reported the case of a woman who had dementia paralytica and familial hemolytic jaundice for which splenectomy was performed. Later, malaria was induced as a therapeutic measure for the dementia paralytica and resulted in a generalized lymphadenopathy. This is possibly a compensatory mechanism by the lymphatic systems for whatever function the spleen may have.

There sometimes develops among those who had lived for long periods of time in malarious regions or who have had repeated attacks of malaria a condition known as hemoglobinuria or Blackwater fever which is accompanied by anemia and jaundice.

Malarial cachexia may result from prolonged attacks of malaria. This is associated with an anemia and a sallow earthy color with a hemorrhagic tendency.

In addition many patients with this disease may present a diversity of symptoms which is the impression of many authors according to Hyman.⁶² In his series were 100 cases who were admitted with various diagnoses which were subsequently changed to malaria.

The diagnosis of active malaria is usually easy. An enlarged spleen is an indication of the disease in a malarial district. An absolute diagnosis is made by finding the parasites in the blood. This is done by means of thin and thick blood smears, according to the U. S. Public Health Service.⁶³ Jacobson and Russell²⁰² believe that when morphological diagnosis in a

case of suspected malaria cannot be established from thick blood smears, an attempt should be made to demonstrate the parasite in the bone marrow since identification of the type contributes to effective treatment. The sternum is the most readily available source of marrow. Sternal punctures will not be helpful in the diagnosis of the disease if the patient is known to have had malaria as the malarial parasite may live in bone marrow for years and have no bearing on the current illness. Proske and Watson⁶⁴ utilized the protein tyrosine test for the diagnosis of this disease. The best is based on the fact that a certain fraction of the proteins in blood, the englobulins, is increased in most cases of malaria and the increase can be shown by a chemical color test. This test which they feel is an adjunct for laboratory diagnosis gave 97.4 per cent positive reactions in a series of known malaria cases as compared with 81.9 per cent found by microscopic examinations. Bogen⁶⁵ regards the buffer precipitation test a valuable aid in both individual diagnosis and the detection of it in large groups. Metcalfe⁶⁶ reports a method for the fluorescent microscopic identification of the plasmodia of human malaria in blood films. He feels that because of its simplicity this method might be of value in routine malarial surveys. However, it is sometimes necessary to do repeated blood examinations to find the parasites in the blood. The response to quinine and atabrine may bring to light atypical cases.

MORTALITY STATISTICS⁶⁷

At one time malaria was a very dangerous disease in the United States because of its high mortality rate. With the advance in knowledge concerning it the mortality rate has decreased considerably and as the result it has become less serious. The statistics for the mortality rate for malaria previous to 1900 are not obtainable to any degree of accuracy. Nevertheless, there appears to have been a high rate prior to this time. With the discovery of the causative organism in 1880 and the mode of transmission in 1897, with increased anti-malarial prophylaxis and improvement of hygiene conditions, and recently the use of newer drugs, the mortality rate decreased from 7.9 in 1900 to 2.2 in 1910, and to 0.5 in 1943. The rate is shown in Table 4.

Table 4. *Mortality Rate for Malaria from 1900 to 1943 in the United States**

<i>Year</i>	<i>Death Rate</i>
1900	7.9
1905	3.9
1910	2.2
1915	2.3
1920	3.6
1925	2.1
1935	3.5
1936	3.1
1937	2.1
1938	1.8
1939	1.3
1940 **	1.1
1941 **	0.9
1942 **	0.6
1943 **	0.5

PROPHYLAXIS

Malaria — man (non-immune) — mosquito (anopheles) are known as the triangle of M's. One of these alone is inert and harmless, and together they are a menace to health and prosperity.⁶⁸ It would appear, therefore, that a logical procedure in prophylaxis of malaria would be to eradicate malaria, protect man or eliminate the mosquito. The question then arises to how this should be done and which of these should be first. Logically, for best results, all three must be treated.

From a historical point of view it was interesting to find that drainage was amongst the first methods of the ancient world used in an attempt to eradicate malaria. It was employed at that time because it was thought that this disease was caused by swamps and marshes. Empedocles,⁵ in the fifth century B. C. was said to have been successful in eliminating this condition from the town of Selinus in Sicily by joining two rivers and draining off the marshes. A method involving the principles of drainage

* Death rate for malaria is recorded per 100,000 estimated population, United States, 1935-1943, per 100,000 population in the registration area of Continental United States from 1900-1925.

** Rates based on total population excluding armed forces overseas.

was employed on the Roman Campagna about 100 A. D. Water soaked into the hills of the Campagna, a very pestilent area, and was drained through tunnels which were dug in these hills. While this procedure was not completely successful, it lessened malarial prevalence considerably. Drainage has continued to be used even to the present day.

Little can be said about the prophylactic measures in the early years of the United States. It appeared that the country was too taken up with its newness and that it was more intent with developing and expanding than eliminating disease. However, a number of divergent methods of malarial eradication had been suggested.

Amongst the first American contributors to this field was Gorrie,⁶⁹ who in 1854, believed that people should not move from one climate to another climate because climatic changes were supposed to be an etiologic factor of malaria. This idea agrees somewhat with the present day opinion of Galli-Valerio,⁷⁰ who believes that the shifting of the population may be detrimental because certain individuals who are immune in one area may contract the disease when they move to another. For prevention, Gorrie advised the following measure with their reasons:

- (a) Artificial fires to substitute pure air and cause combination of carbon with gas and vapors. He supposed that a gas might cause malaria but that this gas was different from ordinary gas and vapors.
- (b) Growth of groves around houses to disinfect air by supply O₂ and give shelter from rain. He believed that leaves of trees were associated with electricity which change character of malaria.
- (c) The use of vapors and gases as camphor, chlorine, acetic, sulphuric, and nitric acids to change chemically and decompose malaria.
- (d) Gauze curtains to prevent chiefly the annoyance of mosquitoes and filter out the atmosphere.

Furthermore, he suggested cleanliness, paving streets, good sewerage, and a cooling system for ventilating houses by the use of ice and also maintenance of health by avoiding

undue exposure at night. These were good principles considering the knowledge of malaria in 1854.

An exponent in a different direction was DeSaussure,⁷¹ who advised the use of quinine, which already was being administered in the treatment of malaria, as a protective measure for those unduly exposed. He felt that quinine could not be taken over long periods of time without injury to good health, that it was not habit-forming and that its daily use did not inhibit its remedial effects in combating this fever. Derby⁷² made similar observations that quinine completely protected those who did not have this fever and that it was rarely ineffective in this respect.

An interesting note on smoking and chewing tobacco was made by Crawford.⁷² He believed that tobacco in some unknown way counteracted the cause of malaria and that it was the habitual users only who obtained some degree of immunity.

Schench⁷⁴ thought that changes in temperature were a possible cause of malaria and that drainage produced greater variations in the temperature. With this in mind, he suggested wearing of proper clothing to combat such changes or discontinuance of drainage. His régime also advised healthful exercises, good diet and the avoidance of all irregularities although he considered germicides and antiseptics as impractical and useless.

Herbert⁷⁵ (1887) was among the first members of the American school who favored drainage. He felt that marshes and low-lying places must be drained properly and that partial drainage was useless. Furthermore, he thought there should be no stagnant water and when drainage was impossible, these areas should be filled in or that flooding might be helpful. He advocated further cleanliness in habit and prophylaxis in person. LePrince⁷⁶ felt that drainage projects should have state approval and the system installed should be permanent. Bad drinking water was accused of being the cause of malaria by Smart,⁷⁷ who, in 1884, advocated water filtration to purify it.

On the other hand, Ross⁷⁸ advocated, in addition to these ideas, the use of drugs to disinfect undrainable as well as drained areas. Ending the nineteenth century with the discovery of the cause of malaria, ever increasing

amounts of work were being done to solve the problem of malaria extermination. In 1912, Craig⁷⁹ advised education of the public and frequent free blood examinations to discover latent infections. Following him Bass⁸⁰ advocated educating future doctors in medical schools and children in public schools on malarial problems. He furthermore believed propaganda concerning malaria should be extended into countries from which cases of this disease originate. He also advised coöperation between employers and employees with an expenditure by the former and a taking of proper treatment by the latter.

Another idea was brought forth by Brewer⁸¹ who would turn swamps into lakes and stock them with mosquito eating fish. LePrince,⁸² as well as Herms,⁸³ commented that the object was to destroy the larvae of the mosquito and that oiling of water surfaces should be supplementary to proper drainage.

It has been reported⁸⁴ that temperature has a certain effect on the reaction of larvae. It was found that when the temperature of water is reduced to a point below 55 F. (12.9 C) larvae leave the surface for the bottom and remain there for long periods. However, they rise to the top when the temperature becomes higher.

During the winter months when the temperature of the water ranges from 39 to 50 F. (3.9-10 C) larvae remains mostly on the bottom in a quiescent state. If the water is disturbed the larvae return only momentarily to the surface. Therefore, when a search is being made for breeding places during cooler months, the bottom of water must be well disturbed so as to bring the larvae to the surface and inspection must be made rapidly. This illustrates the need of measures to exterminate the larvae during the winter months.

Oiling prevents mosquitoes from laying or breathing. Mosquitoes do not occur in fast moving streams, therefore such streams need not be oiled. On the other hand, Johnson⁸⁵ believed that oiling at its best was unsatisfactory but it should be used for want of better methods. Children are chief carriers, according to Ebright.⁸⁶ Therefore, it would be wise to prevent such children from coming in contact with mosquitoes. He claimed that the mosquito hawk, a dragon fly (*Libellula*), preys on mos-

quitoes. However, he considered it best to overcome mosquitoes with minnows (*phoxinus loevis*) and other mosquito eating fish (*Gambusia*) where oiling is impractical. Lectures⁸⁷ were given by the U. S. Public Health Service in certain mill towns on the destruction of mosquitoes and their breeding places, screening of houses, use of mosquito bars, and on the prophylactic use of quinine. As the result malaria decreased appreciably. Sterilization⁸⁸ of human carriers has been suggested as a method of controlling the disease by directing an attack on the malarial plasmodia in the administration of quinine. Since infected mosquitoes conveyed malaria to man and that infected man conveyed it to the mosquito, Bass⁸⁹ reasoned that the uninfected person must be protected from stings and the infected people must be disinfected. Screening was induced sometime after the Civil War (1862-65) and has become an important method of prophylaxis as shown in a recent malaria survey⁹⁰ in southeastern Missouri. It revealed that thirty to forty percent of the population living in open unscreened houses had malaria, whereas only about six percent of the people living in screened houses had the disease. Smith⁹¹ reviewed the work of Campbell who built a "bat-roost" in a malarious district and noticed that malaria subsided, supposedly, due to this factor. Drainage, filling and oiling were ever gaining in popularity, although other methods were being introduced.

Barber⁹² evolved the method of extermination of mosquitoes by Paris Green and other arsenicals. Komp⁹³ found that this method gave 99.63% destruction of mosquito larvae. Further evidence of its value was given by S. N. Welch⁹⁴ who declared that Barber's Paris Green method was the best for undrainable areas. The plan advocated by Tennessee Valley Authorities⁹⁵ utilizes Paris Green by airplane dusting of impounded water.

Deeks⁹⁶ stated that quinine prophylaxis was useless except in cases of non-immune persons who have been exposed to the infection. He, also, was of the opinion that mosquito infections should be prevented by clearing peripheral blood of parasites and so it would be possible to prevent the spread of the disease to some extent. This was in partial agreement with the findings of Yorke, Warrington and Macfie,⁹⁷ who concluded from their cases that quinine before infectious feed of mosquito is useless

and that unless this drug is continued from ten to fourteen days after infectious feed, the infection will develop. They found the period of infection to be shorter when larger doses of quinine were used, i. e. 30 grains (2 grams) daily for three days. Apparently the short and small courses of prophylactic quinine were unsuccessful to prevent infection because not all the sporozoites were destroyed in the blood. Barber⁹⁸ felt that the experience of the troops in Southern Europe during the World War I showed that quinine alone cannot prevent a serious prevalence of malaria. On the other hand, Castellani⁹⁹ a few years ago remarked that quinine won the recent Italian-Ethiopian War since the Italian soldiers took ten grains (.6 gram) of quinine daily.

Some years ago, plasmochin was used in the prophylaxis of malaria with good results. Barber and Komp¹⁰⁰ and Barber, Komp and Newman¹⁰¹ reported that small doses of plasmochin rendered carriers non-infective to mosquitoes. James, Nichol, and Shute¹⁰² found that plasmochin given in doses $\frac{1}{3}$ grains (.02 grams) three times a day prevented the development of the disease in ten volunteers bitten by mosquitoes heavily infected with sporozoites of benign tertian malaria. Four controls without plasmochin developed the disease in fourteen days. Findings along these lines by Baker and Gill¹⁰³ as result of experimentation, suggested that a plasmochin compound containing $\frac{1}{6}$ (.01 gram) of plasmochin and approximately 3 grains (.125) grams) of quinine sulphate, given once or twice a week to all inhabitants of a malarial district would result in a decreased incidence of the disease. Barber¹⁰⁴ has also observed the extraordinary power of minute doses of plasmochin in rendering nonviable the sexual forms of the malaria parasite. Williams¹⁰⁵ believed that the inclusion of plasmochin in "chill tonics" would reduce the malarial rate and that ten centigrams of plasmochin a day was safe dose for adults. He further stated that these tonics were taken all over the south, particularly in rural areas where malaria is most prevalent.

A complete control program outlined by Winchester¹⁰⁶ included the use of atabrine (acridine dye) by mouth and in addition drainage, screening and oiling. However, later he believed atabrine and plasmochin being cheaper

were more practical and better as a control of malaria than these other anti-malarial measures.

The "flit" gun and pyrethrum sprays have been the greatest aid in reducing malaria during this war in the opinion of Freeborn.¹⁰⁷ DDT (Dichlordiphenyltrichlorethene) has also been advocated for malarial control. Simmons¹⁰⁸ contends that DDT just available as a prophylactic measure against mosquitoes is a revolutionary new weapon in fight against malaria as a malarial larvicide and insecticide to kill adult mosquitoes. Because of its low cost it would seem reasonable to utilize this chemical by the airplane dusting method.

To summarize, the prophylactic methods most commonly used included oiling, drugs, mosquito fish and chemicals to kill the larvae and mosquitoes.

The modern technique of combating malaria requires a study of each pestilent area as a separate entity and the determination of the best prophylactic measures for each of these. Different methods are needed for different places. In general, there are definite fundamental lines of procedure in the fight against malaria. It is usually best to start with the treatment of the carrier. The next step consists in protecting human beings by screening and disinfecting of living quarters. Following this, the mosquito larvae must be killed by using chemicals and oils. The fourth measure consists of draining swamps. Natural control is the final factor which combines the work of the doctor, engineer and biologist, and this promises to be the best method for curbing the disease. However, the perfect method is yet to be found.

There has been no special federal legislation adopted to combat malaria in the United States and at present there are no anti-malarial regulations on the federal statutes. However, certain southern states have enacted water impounding regulations. With this in view, the states of North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Tennessee, and Louisiana have passed such legislation. In addition, local boards of health have made regulations concerning sanitation and menaces to health in general which, no doubt, have been of value in combating this disease. Malaria has decreased to a comparatively greater degree in urban areas than in rural dis-

tricts. This may be due to fewer insalubrious areas and to the better sanitary conditions in the cities and also to their having more money to expend for anti-malaria programs.

Several years ago a committee¹⁰⁹ reported at the national health conference that at that time, substantial progress in the application of malaria control measures has been accomplished through the work relief projects financed by the Works Progress Administration. These programs entailed drainage operations designed to eliminate mosquito breeding places. While it is expected that additional progress may be made in this way in the future, the need for malaria control measures of a diversified nature is of sufficient importance to justify a more permanent basis of financial support. The Committee further recommended annual federal, state and local appropriations of \$10,000,000 to be expended by health agencies in this field.

In looking over the past, it appears that the discovery of the cause and mode of transmission of malaria had paved the way for the eradication of the disease on an intelligent basis. Years ago it looked like a hopeless task in magnitude and expense. Nevertheless, as time has passed on, various extensive projects have been carried out and have shown that this menace to health may be overcome by comparatively simple means at times. For example, an effort to control malaria by screening was made in a community in Arkansas.¹¹⁰ A study of the parasite index among the population showed a 70 percent reduction in prevalence of infection within a year where this measure was employed. The average cost of screening a house was about \$15.00 or a per capita cost of \$1.75, thus giving a slogan: "A yard of screen in the window is better than a yard of crepe on the door." In another community quinine was given to all persons there in doses of 5 grains (0.3 grams), each morning and night, for two successive days, each week this locality showed a 60 percent reduction in the parasite index in a few months at a per capita cost of about \$.57.

TREATMENT

From a historical point of view the treatment of malaria has been of unusual interest because of the great variety of medicinal and physical

agents that have been employed curiously enough with success being reported in a number of instances. However, the therapeutic agent which stood the test of time best was cinchona, until atabrine came into use. One of its derivatives, quinine, is now being used universally and was considered a specific for this disease. Practically all of the chief forms of malarial treatment had consisted in the administration of cinchona in one form or another. On the other hand, other types of therapy have been used in association with or without this drug. These include such chemicals as arsenic, mercury, nitric acid, carbolic acid, atabrine, plasmo-chin, mineral waters and such physical agents as cold baths, electricity, the application of blisters.

Rush¹¹¹ was among the earliest contributors to the therapeutics of malaria in the United States. About 1805, he included venesection in the treatment of those cases which did not yield to the bark, although he believed that the bark seldom failed when blisters were applied to the wrists. He suggested bloodletting of four to twelve ounces (120-360 c.c.) in those cases where blisters were neglected or applied without effect or when the disease persisted into the winter months. Betts¹¹² and Haynie¹¹³ were others who believed in venesection. Haynie, in addition, prescribed mercury which he considered to be a stimulant and helpful in eliminating toxic products of the liver. On the contrary, Carr¹¹⁴ and Mays¹¹⁵ believed that mercury was harmful and produced detrimental effects in an individual. Carr reasoned that it was not logical to administer mercury which irritates when venesection is employed to remove irritation. In 1807, Auld¹¹⁶ reported success following the use of nitric acid with calomel and jalap pills. The nitric acid was used "in the strength which anyone could drink." Currie,¹¹⁷ in 1914, gave arsenical compounds only to those patients who did not tolerate Peruvian bark or cinchona, whereas, Lamb¹¹⁸ found arsenic very effectual and used it routinely in treating malaria. Mercury has fallen into discard except possibly for the form which is suitable for purgation.

New substances in an attempt to cure the disease were increasing in number in the early part of the nineteenth century. A case¹¹⁹ was reported in 1821 where three and a half ounces

(105 c.c.) of a concoction of water and dried unburnt coffee proved of value. The following year iron of prussiate¹²⁰ was advocated as being better than cinchona in that it was tasteless and that smaller doses could be taken more often and was more certain in preventing recurrent paroxysms. Jackson¹²¹ showed that while it was as successful as cinchona or quinine, it was less harmful, less expensive, it could be taken without medical advice and was useful in persons who were unable to tolerate bark and in the advanced stages of the disease where the efficacy of the bark was doubtful. Spirits of turpentine¹²² was also reported as having been administered satisfactorily in a case where other medicaments were used without avail. The treatment consisted in the oral ingestion of six doses of turpentine in two-thirds of a tablespoon each (5.3 c.c.) in molasses during a period of fourteen days. Turpentine¹²³ was also employed later effectively by anointing parts of the body of the afflicted person along with a corn sweat. Kennedy¹²⁴ also utilized this method to good advantage and believed that the mode of action was through the impression on the nerve centers and through its stimulant and painful effect. Perrine,¹²⁵ in 1825, treated four cases with ergot and of these, two women recovered completely and in two men the results were questionable. Salicine was prescribed by Logan¹²⁶ who found that it was inferior to quinine and that its action was enhanced when combined with piperine.

About the middle of the nineteenth century halogen derivatives came to the fore as therapeutic agents. The most common of these, salt or sodium chloride was utilized by Herrick,¹²⁷ Lattimore¹²⁸ and Hutchinson¹²⁹ who were certain of its efficacy. Herrick believed that sodium chloride preserved the blood globules and that it had a specific influence in arresting exacerbations of the disease. The treatment he gave consisted of two drams (8 grams) of sodium chloride in mucilage of gum arabic twice daily. However, Lattimore observed that sodium chloride therapy was ineffective if the spleen which was enlarged in malaria did not decrease in size during the period of treatment. Hutchinson found sodium chloride superior to all forms of the usual medicaments excluding quinine. He thought it produced a condition of the system which neutralized the malarial

poison and although it was inferior to cinchona, it should be used where quinine was contra-indicated or had lost its effect, and for poor people who could not afford the cinchona. Iodine was another halogen used. Anderson,¹³⁰ Kemper,¹³¹ Wadsworth,¹³² and Morison¹³³ found the administration of iodine very beneficial. Fridenberg,¹³⁴ on the contrary, found iodine useless in twelve cases which later were cured with quinine. Morison¹³³ prescribed 5 to 15 minims (0.3-1 c.c) of the tincture of iodine largely diluted and gave it freely in two hundred and fifty cases. It was employed because it stopped the movement of infusoria and bacteria. Therefore, it was thought to have a decided effect in diseases caused by them.

Success with chloroform in malaria has been recorded by Dalton,¹³⁵ Brichell,¹³⁶ and Merrill¹³⁷. Dalton gave morphine along with chloroform in some of his cases. His dose of chloroform was one or two drams (4-8 c.c.) in camphor water given during the cold stage in simple intermittents with or without morphine and practically all the cases were arrested immediately. Merrill cited that chloroform was used because it exercised a specific influence over disordered innervation which caused congestion and chills. This enabled one to arrest an attack of fever in the inceptive stages and to prevent great mortality. Potassium bromide, according to Broch,¹³⁸ proved of value in some cases and in other cases only when quinine was also administered. He observed that it did good in certain patients where quinine and iron exerted no effect. Chloral hydrate¹³⁹ was also believed to be of benefit after quinine, arsenic and other anti-periodics failed.

Even onions¹⁴⁰ were employed with successful results as shown in one case in which the onions were beaten to a pulp and were bound to the wrists and soles of the feet and in another case in which they were rubbed over the chest. A poultice made out of poke root¹⁴¹ or phytolacca was bound to the hands and soles of the feet of chronic sufferers and resulted in the elimination of the disease. Another medicament in this category was carbolic acid and this, too, had its sponsors and objectors. Freulich¹⁴² advised its use where quinine was ineffective while Havard¹⁴³ and Yandell¹⁴⁴ were not particularly impressed with its efficacy.

It is interesting to note that amyl nitrate has

been tried in this disease. Osgood¹⁴⁵ reasoned that since the capillaries were in a state of contraction during the chill, amyl nitrate was of value because it overcame this spasm. Inhalation of six drops aborted chills and therefore was important if it did nothing else. Other successes have been reported with concoctions of macerated tela araneae¹⁴⁶ or spider web, and Sierra Salvia¹⁴⁷ in hot infusions given in tonic proportions for about two weeks. Mullein¹⁴⁸ was utilized in the form of a warm infusion during the Civil War. The mineral waters¹⁴⁹ of Greenbrier, White Sulphur Springs and Saratoga Springs were supposed to be beneficial in the treatment of malaria. This method of therapy consisted in drinking and bathing in those waters which were believed to result in a cleaning out of the system by flushing the bowels, kidneys, skin, and liver and changing the state of mind and spirits. One-half grain (0.03 grams) pills of ammonium picrate with gentian extract three times daily were administered by Fuller¹⁵⁰ and in three days marked improvement was shown although a non-toxic yellow color was noticed in the urine, skin and eyes. Thayer¹⁵¹ used methylene blue but found that it was inferior and less efficacious than quinine.

Jeffrey¹⁵² regarded myrrh when given together with quinine, as very effective. This seemed logical since myrrh increased the white blood corpuscles four-fold and these cells possibly acted as scavengers on the plasmodium. The dosage for the combination of these was two grains (0.12 grams) of quinine and one grain (0.06 grams) of myrrh, made into capsules, taken every three hours. In 1899, Nuclein was suggested by Aulde¹⁵³ for the treatment of malaria. He believed that in the successful treatment of malaria the growth and multiplication of spores and the lodgement and retention of spores in the system were outstanding factors which demanded attention. Since these lodged in the red blood cells he deemed it advisable either to increase the resistance of such cells or augment the output of the defensive proteids of which nuclein is the chief. He felt that the functional activity of white blood cells (scavengers) should be increased and also the resistance of the red blood cells which is a function of nuclein. One to four drops of this was given in water every

four hours until physiological cure was effected. Nuclein may also be given hypodermically.

Electricity was utilized in the therapy of malaria by Baird and Powell,¹⁵⁴ who found it of value in many cases, although some required the addition of quinine. Ramsdell¹⁵⁵ cited cases where quinine was not retained by mouth but when cold sponge baths were given the vomiting and convulsions were eliminated and consequently the drug was retained. Brodnax¹⁵⁶ tried ice in a number of malaria cases but found its use unjustifiable because in his opinion there was no reason to freeze a sick man in ice who was already chilled to death with the disease. It is possible that these cases apparently cured were not malaria but other fevers of unknown etiology.

With the commencement of the Twentieth Century the number of drugs tried in malarial therapy were still increasing. Some of these were different forms of older drugs such as arsenicals and mercurials while others were new. Goldthwaite¹⁵⁷ administered salvarsan and Bogan¹⁵⁸ neosalvarsan each in one case with success. One injection of $7\frac{1}{2}$ grains (.5 grams) of neosalvarsan was used by the latter. Silver salvarsan was given intravenously by Mason¹⁵⁹ in doses of ten and twenty centigrams, respectively, to a patient, who did not yield to other anti-malarial measures and with relief of the malarial symptoms. In two cases, Bass¹⁶⁰ used stovarsol which appeared to be of some value in tertian but not in quartan malaria.

Barlow¹⁶¹ believed that mercury in the form of the chloride intravenously was destructive to the forms of schizonts of the plasmodium whereas quinine was not and that gametes disappeared after thirty hours. He thought that the mercury acted directly on the red blood corpuscles and destroyed the plasmodium at the time of liberation and in the cell.

Although antimony was used in the older days to a great extent, it fell into disuse. However, recently it has re-established a place for itself because of its value in certain parasitic infections but apparently not in malaria. Levy and Wall¹⁶² gave it intravenously in cases of the aestivo-autumnal type of malaria, the type for which it was primarily designed, and obtained disappointing results. Murray¹⁶³ treated three cases of this disease successfully with

dieminal (manganese) of which six injections were required.

Two newer synthetic drugs, atabrine and acridine dye, and plasmochin, a quinidine derivative, have been tried in a number of cases in the past few years and of these atabrine has shown results which point to their being of definite benefit to this disease. Plasmochin is supposed to be of value especially for sterilizing the sexual parasites (Gametocytes) in the blood stream and is more of a prophylactic. On the other hand atabrine is effective in destroying the sexual and asexual (schizonts) parasites in tertian and quartan malaria while in the aestivo-autumnal form it effects the schizonts only and not the sexual parasites (Gametocytes). Therefore, in the treatment of the aestivo-autumnal type, both drugs have been employed by Grayson and Hastings¹⁶⁴ and Winchester.¹⁶⁵ Their treatment for the tertian and quartan forms in adults consisted of one and a half grain (.08 gram) of atabrine three times daily for five days. In addition, Winchester administered it in daily doses of three grains (0.2 grams) on eight consecutive days in certain cases. These authors differ slightly in the amounts of plasmochin given with atabrine for the aestivo-autumnal type of malaria. In this form Grayson followed the regular atabrine therapy with 1/6 grains (0.01 grams) of plasmochin three times daily for five days and observed that there were no alarming side effects or contra-indications and that the relapse rate was less than with quinine. Winchester employed the same method but gave plasmochin for only three days. Morrow and Wieand¹⁶⁶ also advocated the use of the same combination of these drugs for the aestivo-autumnal type.

There are two preparations of plasmochin, the drug itself and a compound consisting of quinine. Krauss¹⁶⁷ regarded the compound as being superior since the drug alone is quite toxic and he prescribed one tablet of the compound three times daily for five days. Sanders¹⁶⁸ also noted the toxicity of plasmochin and believed that it and atabrine should be given only under the advice of a physician.

In these two drugs there appears to be an actuality for short course treatment replacing the long course treatment with quinine. This is especially true of atabrine since it is excreted

slowly from the body which results in its continued action on the parasite for some time after the withdrawal of the drug. Fletcher¹⁶⁹ found the toxicity of quinine and atabrine low as compared with plasmochin. He observed that the yellow staining of the skin and conjunctivae which appeared occasionally in people under treatment with atabrine was due to its staining properties and not to a toxic action. This yellow color may be mistaken for jaundice unless the history of the patient is known. Mobley¹⁷⁰ stated that while the comparative value of atabrine was probably better than quinine there was some toxicity noted with the former such as symptoms of circulatory and respiratory depression, devil's grippe and epidemic pleurodynia. Sanders was of the opinion that repeated courses of atabrine were dangerous because of its slow excretion and storage in the liver while quinine disappeared quickly from the body.

Sulphanilamide and its derivatives have been utilized in the treatment of a variety of infectious diseases with beneficial results. Hill and Goodwin¹⁷¹ treated seven cases of *Plasmodium vivax* and ninety-three cases of *Plasmodium falciparum* all of whom had previous attacks of malaria with the prontonsil. In most of the cases the medication was given intramuscularly, two and a half drams (10 c.c.) per injection, injections being made every twelve hours. Seldom was it necessary to give more than four injections of prontonsil before a clinical cure was evident. Usually after this number of injections the patient was able to return to work. It has been noted that, apparently the more severe the symptoms, the more quickly the drug acted and the symptoms were alleviated. Prontonsil appears to be of value in treating the above type of cases in those previously infected with malaria. Johnson¹⁷² concludes that from his experience that sulfadiazine is an effective anti-malarial. Penicillin¹⁷³ is considered to be of no value in this disease.

This brings to a close an account of drugs which have been utilized in the treatment of malaria excepting cinchona and its derivatives and newer anti-malarials which shall be discussed presently.

Historically it is interesting to note how cinchona came to be used in the treatment of

malaria. In 1638, the Countess of Cinchon of Peru was ill with a tertian fever. The Corregidor of Loxa having heard of the severe illness of the Countess advised her physician, de la Vega, to try a Peruvian bark used by the Indians for similar types of fever. As the result, the Countess was cured by de la Vega and she became so enthused with the outcome that she is said to have brought the bark with her to Europe which finally resulted in its introduction for malaria. About that time, the colonization of the United States was taking place and it is possible that some of the settlers from Europe or South America brought this drug here and used it until quinine, which was discovered in 1820, was recognized by the doctors of this country.

Since the advent of quinine, the most important derivative of cinchona, for malarial therapy in this country, it has been administered orally, hypodermically and rectally. The oral method was the first utilized. Perrine¹⁷⁴ was among the first Americans to use it this way. He reported success with it in 1826 by giving doses of six to twelve grains (0.36-0.72 grams) of quinine sulphate every two or three hours administered at any period of fever until the malarial symptoms were subdued. However, he stated that the bark was also good but it was objectionable because of the large doses required and because of its oppressive and irritable effects. Carter,¹⁷⁵ in 1840, was certain of the merits of quinine because it was very effective in arresting paroxysms. If it failed, he believed it was used incorrectly. Various doses were administered. Brickell¹⁷⁶ gave doses of thirty grains (2 grams) for two days and fifteen grains (1 gram) on third day, believing that larger doses were more effectual than smaller ones. Since its inception in the United States, quinine has undergone much controversy, some favorable and others unfavorable. Bass,¹⁷⁷ in 1930, remarked that quinine or cinchona alkaloids is practically one hundred percent effective if the patient is treated long enough.

Some people, especially those who believed malaria came from creek water, used to put a spoonful of quinine in their coffee. With many the taking of it was a ritual and large bottles of it were on the shelves of many homes in infected areas along with a glass of water containing slippery elm (*ulmus fulva*).

A good oral treatment with quinine is that which was advocated by the National Malaria Committee in 1918. This consisted in the administration of ten grains (0.6 grams) of quinine sulphate three times daily for three or four days for acute attacks, and this was followed by ten grains (0.6 grams) every night before retiring for eight weeks. In cases of infected persons not suffering with acute symptoms, the treatment consisted of ten grains nightly for eight weeks. In addition, a purgative was usually given at the start of therapy to empty the alimentary canal. Bed rest was included until the acute symptoms have subsided. A liquid or light diet was employed. Adrenalin¹⁷⁸ is being used as an adjunct in the treatment of chronic malaria. The basis for this is that adrenalin contracts the spleen which forces the parasites into the blood stream and thereby permits a more rapid action of quinine. This would seem to be a good plan to precede the giving of atabrine and possibly make its course of treatment even shorter and more effective.

The second mode of administration of quinine is by hypodermic injection. Langer,¹⁷⁹ in 1864, claimed priority in the use of quinine in this manner. Seguire¹⁸⁰ and Scudder¹⁸¹ were confident of its value and reported its worth. Cohen¹⁸² expressed the view that one injection of fifteen grains (1 gram) of the double salt of the hydrochlorate of urea and quinine would as a rule accomplish as much as the oral administration of 25 grains of quinine sulphate given for seven days. Fackler¹⁸³ presented a series of twenty cases in which the results with injection were unsatisfactory. He felt that the skin became irritated by the injection of quinine and that this method should only be used when the stomach and bowels were intolerant to quinine. Maxcy¹⁸⁴ found that quinine given intravenously caused a depression of the circulation, disagreeable and alarming nervous phenomena, local necrosis and sloughing at the site of injection. Thus it is not without dangers. He believed, however, that it may be indicated where prompt absorption into the gastro-intestinal tract was not expected because of violent disturbances; where it was impossible to give it by mouth because of the mental condition of the patient, or where it was necessary to have immediate cinchonization. Spengler¹⁸⁵ held that intravenous injection

tions were life saving when quinine given orally was ineffective. He administered the dihydrochloride of quinine in doses of three to fifteen grains.

The third and more recent method of quinine therapy is by rectal administration. Rigby and Rigby¹⁸⁶ had one case where it proved of value when quinine could not be taken by mouth. They thought that the rectal method of administration was possibly safer than the subcutaneous or intravenous method and they used it in surgical cases where old flareups of malaria appeared. Taylor¹⁸⁷ believed that this method was indicated in those patients who object to the disagreeable taste of thirty grains (2 grams) or more of quinine; have sensitivity of gastro-intestinal tract; suffer with nausea and vomiting as a result of the disease; have algid or cerebral type of malaria or in those individuals who do not persist long enough on oral administration. He, too, considered the hypodermic method dangerous and unsatisfactory. He treated eleven cases and his program of therapy included sixty grains (4 grams) of powdered quinine sulphate in two ounces of olive oil given rectally, daily for several days.

Quinine in adequate amounts is supposed to destroy the asexual parasites responsible for the toxic and febrile reactions. Large doses of quinine are required since it is eliminated rapidly from the body. This may account for the length of treatment with this drug necessary to obtain effective results in malaria.

There are a number of other cinchona derivatives which have been given therapeutic trial in this disease. Chandler,¹⁸⁸ Coxe¹⁸⁹ and Hinkle¹⁹⁰ noted cinchona sulphate to be as effective as quinine in malaria. Hinkle felt that the pure cinchona was even better than the sulphate which produced more nausea. About the middle of the nineteenth century Slusser¹⁹¹ used chinoidine (quinoidine) and believed it to be the drug of choice for the uncomplicated quartan and tertian types of malaria but that it was not successful in the quotidian type although it could be cured eventually if treated long enough. DaCosti¹⁹² concluded that two-thirds larger doses of quinoidine than quinine were required to be effective but that it produced no ill effects. In contrast, Rogers¹⁹³ observed that forty grains (2.6 grams) of quinine was as effective as one hundred and fifty grains (10 grams) of chinoidine and that the

latter drug was less certain and less prompt in action. On the other hand, Doster¹⁹⁴ obtained no failures with chinoidine. He found that it produced no gastro-intestinal irritation if preceded by a cathartic and that it acted as a tonic and hepatic stimulant. He felt that it was indicated chiefly in hemorrhagic malaria and that it was safer than quinine in jaundice conditions.

There are three other cinchona derivatives; quinidine, chinconidine and chinconine which may be important. Of these quinidine is more expensive, chinconine less expensive and chinconidine as expensive as quinine. Sanders¹⁹⁵ advised the use of quinidine in patients who reacted slowly to quinine, in those who exhibited some idiosyncrasy to it, in cases complicated with pregnancy, and also in cases with hematuria. Stone¹⁹⁶ believed that he was the first to use hydrochinconidine and noted that when given in a single daily dose of or corresponding to 8 grains (0.5 grams) of the anhydrous alkaloid it showed definite strong anti-malarial properties likely to be manifest in one to six days.

Totaquine which is a combination of several of the cinchona derivatives likewise had its advocates. Wijerama¹⁹⁷ used it successfully in his series of cases. He treated 95 patients with totaquine and 132 with quinine bisulphate. He found that totaquine proved more effective in stabilizing temperature, causing the disappearance of parasites and inhibiting the formation of gametocytes in all three types of malaria.

Green¹⁹⁸ compared totaquine, quinine and atabrine in his cases. He was of the opinion that totaquine controlled fever in a period of time identical with that of quinine and caused the disappearance of the organisms from the blood stream in practically the same length of time as it. The incidence of toxic symptoms were about the same for totaquine and quinine, but the nausea and vomiting caused by totaquine was more disagreeable than the toxic symptoms of either quinine or atabrine. He also found that the interval between attacks and subsequent relapses were shortest for cases treated with totaquine, and slightly longer for cases treated with quinine. Cases treated with atabrine relapsed at intervals which on the average were three times as great as the intervals following totaquine therapy.

Of all the cinchona derivatives, quinine has appeared to yield the most successful results. Some of the others are as yet untried and only further experimentation will prove their worth. Quinine is difficult to eliminate from anti-malarial procedure in this country because a part of the people everywhere have taken it sometime at least. The price of quinine was so exorbitant shortly after its discovery that the poor people could not afford to buy it and as the result doctors prescribed it rarely. This is shown by the fact that in the early days the cost of quinine was about \$4.50 an ounce while in 1913 it was approximately 25 cents per ounce. The cost, however, increased to 95 cents per ounce in 1940, possibly because of foreign conflicts preceding this time. With the commencement of World War II and the entry of the United States, the supply of cinchona and its derivatives became depleted in this country so that very little, if any, was available for civilian use because of the demands of the armed forces. Today, the cost of quinine has risen to about \$1.12 per ounce if available. It is likely that the cost of quinine will drop again in time to come where supplies are increased and because of the superiority of atabrine in this disease associated with the possibility of discovery of newer anti-malarials, the products of intensified research.

According to the U. S. Public Health Service:¹⁹⁹

"War experiences have brought out or re-emphasized the following facts in malaria; that most cases that relapse after long latency or which have repeated relapses represent vivax (benign tertian) infections. No available drugs will cure this infection with certainty, but it is self-limited and one to three years after exposure most cases have burned out. Falciparum infections are usually permanently cured during suppressive therapy given by the Services at the time of and following exposure, usually with no clinical attacks. Atabrine is in most respects superior to quinine; its slow elimination results in relapses being further apart. If loading doses are used, its immediate action can be made as rapid as that of quinine.

"The most generally accepted program for handling relapsing vivax patients at present is to treat the attacks as they occur, using atabrine dihydrochloride, 0.2 gm. every six hours for

five doses, then 0.1 gm. t.i.d., for six days (2.8 grams in seven days). With each of the large initial doses, 15 grains of sodium bicarbonate and 200-300 c.c. of water or fruit juice should be given to minimize gastro-intestinal upsets. If there is a well-defined history of intolerance to atabrine, quinine should be used, 10 grains t.i.d. for seven days. After the latter regime recurrences will occur sooner, on the average, than after atabrine. In complicated cases (persistent vomiting, coma, high density of falciparum parasites in the blood smear, accompanying diseases such as dysentery, pneumonia, injuries, etc.), atabrine should be given intramuscularly. Ampules containing 0.2 gm. each are commercially available for this purpose and the accompanying directions should be followed carefully. Quinine in suitable preparations can of course be given intravenously, slowly, in large volume of physiological saline.

"Since no known drug is truly curative for vivax malaria, relapse may be expected after the above regimes in 50 to 75 percent of the attacks treated. The overall duration of the disease is seldom more than one and a half to three years after exposure however, and patients should be reassured that the disease is self-limited and leaves no permanent sequelae. In individual cases, relapses can be suppressed during periods when they would be particularly inconvenient, as while travelling, etc., by taking atabrine in small doses. If no atabrine has been taken in three weeks, loading doses of 0.1 gram t.i.d. for three days should be taken, the 0.1 gram daily as long as desired. Yellowing of the skin and occasional mild discomforts from atabrine make it inadvisable to recommend this procedure for the entire course of the disease. New drugs, the product of wartime research, have certain advantages over atabrine, but even these are not curative and are not likely to be available for some time."

Ellebrook and Associates²⁰³ determined the concentration of quinacrine in the plasma of 291 patients during and after 412 attacks of Plasmodium Vivax Malaria of South Pacific origin. The standard treatment was the oral administration of 2.8 Gm. quinacrine hydrochloride in approximately seven days. The dose was 3.2 Gm. for 33 patients. The daily fasting values on 2.8 Gm. treatment from the

second to the eighth day was 41 to 52 micrograms per liter. When a fasting plasma quina-crine concentration of approximately 45 micrograms per liter was attained within 24 hours and maintained the symptoms of the attack were usually abolished within 72-96 hours after the start of treatment.

Among recent advances²⁰⁰ in malarial research has been the investigation of a great number of chemical compounds for anti-malarial activity in various avian infections and in human malaria. Included in these practical advances resulting from these studies may be mentioned: (1) The development of better methods for the use of quinacrine (atabrine) in the suppression and treatment of malaria which lead to the demonstration that this compound is superior to quinine. (2) Development of compounds superior to quinacrine. Among these are several members of the 4-Amino-quinoline series. In this group SN7618, 7-Chloro-4-(4-diethylamino-1-methylbutylamino) quinoline, has received the most extensive study both in civilian and in military establishments. This compound is an effective suppressive when administered no more frequently than once a week in a well tolerated dose. It will also cause an abrupt termination of the clinical attack of vivax malaria and will cure falciparum malaria when administered for only one or two days. It does not discolor the skin as does quinacrine nor does it cause the disagreeable gastrointestinal symptoms which are sometimes seen with the administration of quinacrine.

SUMMARY

This paper presents a study of the history of malaria in the United States. It includes the etiology, transmission, geographical distribution, symptoms and signs, mortality statistics, prophylaxis and treatment of the disease.

The major discoveries in malariology were made before 1900 and most of them occurred in Europe except for the use of cinchona, in Peru, in 1638, and except possibly for certain prophylactic measures and newer anti-malarial drugs in the United States. Nevertheless, all the important discoveries were confirmed in this country and in a large measure it resulted in their adoption to combat the disease.

From ancient times up to 1880, when the

actual discovery of the cause of malaria was made various hypotheses as to the etiology were suggested. These hypotheses embodied the ideas that noxious marsh air, water, vegetable decomposition, cryptogamous origin from fungi, sulphuretted hydrogen, carbonic acid, hydrocyanic acid, vegetable cells and bacilli were etiological agents in the disease. Then in 1880, Laveran, a Frenchman, described the causative organism of malaria. Two years later, Marchiafava and Celli observed that amoeboid organisms were constant in the red blood cells of malarial patients and they named these organisms plasmodium malariae. Shortly after, Councilman gave them credit for this discovery. He, Osler, and Dock confirmed the important discoveries of Laveran concerning the organism.

As early as 1717, Lancisi, an Italian, suggested that the mosquito sting might transmit malaria. Crawford, in 1807, may be said to be the first American to support the insect theory of transmission of disease. Nott, in 1848, considered the "mosquito of the lowlands" as all important. It was interesting to note that King, in 1883, believed that the sting of proboscidian insects may introduce bacteria and germs into human bodies. Nevertheless, the actual discovery of the mosquito as the vector of the disease was made by Ross, an Englishman, in 1897, for which he was awarded the Nobel Prize. Koch and Bignami agreed with Ross and furthermore, the former found that the mosquitoes *Culex pipiens* and the *Anopheles* were present in infected areas. The facts of today are in agreement with such findings and it regards that the sting of man by an infected *Anopheles* mosquito is necessary for the transmission of the disease.

Investigations of unusual interest have brought out the fact that on examination of *Anopheles* eggs there are seven distinct types and two of these were not present where there was no malaria. There are seven types of *Anopheles* mosquito. Two of these are "man biters." The others are harmless unless there are no animals upon which they can feed. In areas where there are many mosquitoes and no malaria, the mosquitoes presumably will sting animals, "animal biters." Where there is much malaria and few mosquitoes, humans are victims of their sting, "human biters."

Another means for the propagation of this disease is by the use for transfusion of blood of malarial donors. Occurrence of malaria in drug addicts due to inoculation with hypodermic needles has been recognized since 1929. Placental transmission from mother to fetus may also take place.

Malaria is considered to have been present in the United States since the advent of the Pilgrims and from certain studies it appears that it was present as early as 1607. Epidemics date back to 1634 occurring in eastern Massachusetts. Since this was shortly after the arrival of the Pilgrims and others to this part of the country it might be assumed that the disease was brought in from Europe by them. Other epidemics occurred in New England in 1647, 1650, and 1668, and these may have had a similar basis for occurrence as the earlier one. In the eighteenth century, the disease was prevalent in the southeastern part of the United States. The importation of slaves from Africa commenced about this time and this could have been a factor in the dissemination of the disease into the south. It is possible that mosquitoes, too, were brought here by incoming ships and since the afflicted areas were conducive to their viability they thrived. It is known that this part of the country is insalubrious as compared with other parts of the country. The disease spread north, south and west with geographical expansion of the population. However, when people became settled its frequency became less. Although malaria was once very prevalent in the northern part of the United States, it has decreased considerably in the past half century so that it is no longer an important consideration there. On the other hand, in the southern part its incidence has also decreased but in a number of areas some frequency is still present and presents a significant hygienic problem. This was especially true in the southeastern part which showed an increase in frequency from 1931 to 1935. Here ninety-seven percent of all the malarial cases in the country occur. This may be attributed, during this time, in part at least, to the depression since this section of the United States was comparatively harder hit than other parts and resulted in a decrease in anti-malarial activity. However, with a return to prosperity the incidence has decreased considerably.

In the State of Maine this disease does not appear to be a public health problem. No case has been acquired within the state. Eleven cases were reported from 1910 to 1936. From 1936 to 1944, the yearly number of cases reported was from 0 to 4. Deaths attributable to this cause did occur in this period. In 1945, there were 28 cases. This large increase was apparently due to increasing numbers of veterans returning from infected areas.

The symptoms and signs of malaria are classical and have been recognized for centuries. Consequently, nothing especially new concerning them has been brought out in this country except possibly that this disease may sometimes present a diversity of symptoms to which various diagnoses may be given.

The diagnosis of active malaria is usually easy. Finding the parasites in the blood by means of thin and thick blood smears is necessary for absolute confirmation. Demonstration of the malarial parasites in bone marrow should be attempted when thick blood smears do not reveal any. Other laboratory adjuncts to appear in this country in recent years for purposes of diagnosis are the protein tyrosine test, the buffer precipitation test and fluorescent microscopic identification of plasmodia in blood films.

The mortality statistics for malaria previous to 1900 cannot be accurately obtained although there is believed to have been a high mortality rate at that time. With the discovery of the cause and mode of transmission of malaria, the mortality rate has dropped from 7.9 in 1900 to 2.2 in 1910 and to 0.5 in 1943.

The discovery of the cause and mode of transmission of malaria has paved the way for the eradication of the disease. Years ago, the task appeared hopeless in magnitude and expense. Nevertheless, various extensive projects have been carried out and have shown that this menace to health may be overcome by various methods. Drainage appears to be amongst the oldest prophylactic measures tried, for it was utilized as early as the 5th century B. C. or even earlier in infected European areas. Other ways which have evolved with time in our country consist of proper ventilation, healthful exercise, proper diet and protection from undue exposure. These were supposed to eliminate factors which were said to predispose the disease. Newer prophylactic measures to come

out of World War II in this country are the "flit gun," pyrethrum spray and DDT. Airplane dusting of impounded water with Paris green is also recent. Oiling, screening, chemicals, mosquito fish and public education are other forms of prophylaxis. Drugs used in the prevention of the disease are quinine, atabrine, and plasmochin. The demonstration that the incidence of malaria may be decreased by more than one method in a community has been a contribution of great value to preventative medicine. Where the cost of mosquito extermination is prohibitive to a community, other less expensive methods of malaria control may be utilized.

Many drugs and physical agents have been used in the treatment of malaria. It has been difficult to estimate the real value of certain of these because relatively few cases were treated with any one drug or they were used in combination with quinine. These drugs include chiefly mercurials, arsenical, nitric and carbolic acids, mineral waters, manganese, prontosil, penicillin and sulfadiazine. The physical agents

tried were bloodletting, applications of blisters, electricity and cold baths.

Since the discovery in 1638 that cinchona could be used effectively in malarial fevers, it and its derivatives have been utilized since in the treatment of the disease. The most important of these derivatives, quinine, was isolated from cinchona in 1820 by Pelletier and Caventou, two French pharmacists, and since then its specificity to some degree in the disease has been shown. However, in the early days the high cost of quinine made it impossible for the poorer classes of people to buy this drug and this possibly enhanced attempts to find substitutes for it. Of these substitutes atabrine, which has appeared in recent years has replaced quinine except in those cases where atabrine is contra-indicated. The plasma concentration of quinacrine can now be determined. Newer anti-malarial drugs are now under trial and seem likely to replace even atabrine. Among these are the 4-Aminoquinoline series. One of these is known as SN7618.

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Some Aspects of Tropical Medicine

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Knowledge of tropical diseases is of particular importance to all physicians at the present time because of the returning men and women in the Armed Forces who have served in the tropical regions. There are many tropical diseases, some of which are acute, subacute or chronic in nature. The acute diseases will not be described below because they will not be seen in Maine. The subacute and chronic diseases which are showing recurrent symptomatology or which have not been detected at the time of discharge from the Armed Forces will be seen by the practitioner. Almost all of the tropical diseases need laboratory methods for the diagnosis because of the etiological agents involved. The following information was obtained from the Course in Tropical Medicine at the Army Medical School, Army Medical Center, Washington, D. C.

MALARIA

This disease has always been a scourge of the world but not until today has its devastation been brought home to the dwellers of a temperate zone. It is the most important tropical disease that will be faced by civilian practitioners because of the number of returning soldiers who have contracted malaria.

I. Diagnosis:

It is caused by protozoa of the genus plasmodium. Four species are pathogenic for man—*P. Vivax*, *P. Falciparum*, *P. Malariae* and *P. Ovale*. This disease is an acute and chronic infection characterized by fever, anemia and splenomegaly. Definite diagnosis depends upon the demonstration of the parasites. For this purpose the thick blood film is superior to the thin blood technique, since in light infections it may be impossible to find the plasmodium in the thin film. The cases seen at the present time at this hospital are those of relapsing vivax malaria. Relapsing quartan malaria is rarer in occurrence. *Falciparum* malaria has not been seen here and probably never will be seen in its relapsing state because the suppressive

treatment taken by the military personnel while stationed in tropical areas has been effective in eliminating this disease.

II. Prognosis:

Most of the cases seen will be that of relapsing malaria. Some cases will give histories of never having the disease overseas but having their first attack on arrival in the States after they had stopped their suppressive atabrine. The prognosis for recovery from malaria is very good. Treated cases of malaria may be expected to relapse as follows: Quartan malaria—65%, Vivax malaria—55%. Vivax malaria is the most notorious relapser. When a patient has had one or several relapses of malaria, it is impossible at the present time to say whether that attack will be his last one or whether he will have future relapses. There is no way of preventing relapses with present day therapy.

III. Treatment:

Three drugs have been used in the treatment of malaria: quinine, atabrine and plasmochin. The drug of choice is atabrine. Plasmochin is not advised since it is a very toxic drug. The following schedule is used and is the seven-day treatment of any form of clinical malaria.

A. Treatment by Atabrine Alone (Preferred method):

The initial dosage should be relatively large followed by maintenance dosage at lower levels. Atabrine 0.2 grams (3 grains) and sodium bicarbonate 1 gram (15 grains) by mouth with 200-300 cc. of sweetened fruit juices, tea or water, repeated every six hours for five doses. Thereafter, 0.1 grams (1½ grains) three times daily with meals for six days. Total dosage is 2.8 grams in seven days. True toxicity in man following the recommended dosage of atabrine over long periods of time has not been proven. In certain individuals atabrine taken by mouth acts as a gastric irritant producing epigastric pain, nausea, vomiting and diarrhea. These

side effects can be controlled to a large extent by giving the drug with food or with heavily sweetened fluids. Atabrine is excreted slowly and produces a bright yellow discoloration of the skin. It is excreted in the urine and in the sweat and the discoloration of the skin disappears in a course of a few days or weeks after the drug is discontinued.

B. Treatment by Quinine Alone:

This may be used in the presence of idiosyncrasy to atabrine or when atabrine is not available. Quinine sulphate 1 gram (15 grains) by mouth three times a day after meals for two days followed by 0.6 grams (10 grains) three times a day after meals for five days. The total dosage is 15 grams (225 grains) in seven days. Cinchonism may result in sensitive people and the symptoms are mental depression, giddiness, headache, sense of fullness in the head, tinnitus, deafness, amblyopia and occasional blindness.

C. Parenteral Therapy:

The parenteral administration of atabrine and quinine should be restricted to the immediate treatment of severe complications of falciparum malaria such as coma, hyperpyrexia or to any type of malaria complicated by vomiting to such a degree as to render oral therapy impossible or ineffective.

I. Intra-muscular Atabrine Treatment:

Atabrine dihydrochloride 0.2 grams (3 grains) in 5 cc. of sterile distilled water intramuscularly into each buttock. If necessary, one or two additional doses may be given at intervals of six to eight hours. Oral therapy should be instituted as early as practicable in such amounts as to give a total atabrine intake of 1.0 grams in the first forty-eight hours. Thereafter, the dose should be 0.1 grams (1½ grains) three times daily after meals for five days.

2. Intravenous Quinine:

Quinine dihydrochloride 0.6 grams (10 grains) in 300-400 cc. (minimum 200 cc.) sterile physiological saline injected intravenously and slowly. During the injection indications of toxic effect—rising pulse rate and fall-

ing blood pressure — should be watched for. This treatment may be repeated in six to eight hours if necessary. It should be used in the presence of coma or hyperpyrexia and should be considered for the treatment of any falciparum infection in which 5% or more of the red blood cells are parasitized.

FILARIASIS

There are many forms of filariasis and I will limit my discussion to Bancroft's filariasis.

In this condition the adult worm (*Wuchereria bancrofti*) is in the lymphatic system or connective tissue of man. The infection may be accompanied by important pathological conditions related to the lymphatic system which includes inflammatory lesions, dilatation and rupture of the lymphatics, hypertrophy, hyperplasia and fibrosis. Offspring of the parent worms, known as microfilariae, are characteristically present in the circulating blood.

I. Clinical Characteristics:

The clinical phases of filariasis may be characterized as inflammatory or obstructive. The effects of inflammation may include lymphangitis, lymphadenitis, orchitis, epididymitis, funiculitis, filarial abscess, elephantoid fever and secondary bacterial infections especially by streptococci and staphylococci. The obstructive phase is accompanied by a variety of clinical syndromes. Lymphatic dilatation without rupture produces lymph varices, lymph scrotum and hydrocele. Rupture of the distended lymphatics is represented by chyluria, chylous ascites, chylous diarrhea, lymphorrhea and lymphuria. The advanced stages of the obstructive phase are characterized by elephantiasis which commonly effects the legs, the scrotum, the arm and the mammae. The incubation period of clinical filariasis is seldom of less than eight to twelve months' duration and may be longer.

II. Diagnosis:

In the early stages of filariasis, microfilariae may not be demonstrable in the peripheral blood and the diagnosis must be based on clinical data alone. A history of exposure in an area of known endemicity, of a prolonged incubation period prior to the appearance of

symptoms and of recurrent inflammatory phenomena is significant. Certain obstructive signs should be carefully sought for. Commonest of these is swelling of an extremity or of the scrotal contents with accompanying enlargement of the regional lymph nodes. The spermatic cord is frequently thickened, indurated and nodular. Hydrocele of moderate degree is common even in the early stages of the disease and there may be enlargement of the testicle as well. There is, at present, no laboratory test which provides dependable diagnostic criteria in the absence of microfilariae. Blood specimens should be examined at night, preferably after 9 p. m. Skin and complement fixation tests with antigens from related filarial worms, parasitic in other mammals have been used as diagnostic aids but are non-specific in their results. Adult worms may be present in the infected lymph nodes and biopsy is contra indicated since it further augments lymphatic obstruction.

III. Treatment:

There is no known drug which is a specific therapeutic agent for infection by *W. Bancrofti*. Many preparations of antimony including potassium antimony tartrate (tartar emetic), fuadin (neoantimosan) a trivalent compound, numerous pentavalent preparations and anthiomaline have been found to reduce temporarily the number of microfilariae in the circulating blood. None has been shown to cause death of the adult worm or to alter the clinical course of the disease. Nor is it certain that killing the adult worms leads to clinical improvement, for exacerbations are believed to attend the absorption of the degenerating parasites. Since some workers believe the acute inflammatory phenomena to be associated with secondary streptococcal or staphylococcal infections, sulfonamide treatment, especially with sulfadiazine, is often advocated. For involvement of the extremities or scrotum, elevation of the parts, with or without continuous wet dressings, should be used. Chyluria should be treated by complete bed rest with elevation of the foot of the bed. Cystoscopic treatment and bladder irrigations may be required in severe cases when more conservative measures fail.

Surgical procedures are completely contra indicated except for definitive treatment of elephantiasis, especially of the scrotum. Pali-

ative operations directed to improve lymph circulation in elephantiasis of the extremities are seldom successful. Such conditions are best managed by a period of continuous elevation of the effected parts, followed by constant wearing of an elastic stocking or elastic bandage.

IV. Prognosis:

It does not seem likely that any of the members of our Armed Forces will develop obstructive symptoms of filariasis, such as elephantiasis. These symptoms are seen, not too commonly, amongst natives who have resided in endemic areas for many years and who have been repeatedly infected. In the cases of our military personnel, those who have had inflammatory changes due to filariasis were immediately evacuated to the States. The chances of their developing obstructive symptoms in the future are remote and improbable.

SCHISTOSOMIASIS

This is a disease which is due to the presence of certain blood flukes in man. There are three species which infect man—*Schistosoma haematobium*, *S. mansoni*, *S. japonicum*. Each produces its characteristic disease.

I. Clinical Characteristics of Schistosomiasis Haematobia:

In this condition the blood fluke is present in the vesical and pelvic venous plexuses of man. Urinary frequency, hematuria, suprapubic and perineal pain are usual symptoms. Pyogenic cystitis is a frequent complication and carcinoma of the bladder occurs infrequently in advanced cases. The prostate and seminal vesicles may likewise be involved.

A. Diagnosis:

The finding of terminal-spined ova in the urine is pathognomonic of this disease. When laboratory confirmation of the disease is lacking, it is necessary to resort to cystoscopy, which frequently reveals multiple, minute, calcific bodies or sandy excrescences covering the bladder mucosa.

B. Treatment:

Specific treatment of Schistosomiasis haematobium, if the disease has not reached an ad-

vanced or malignant state, offers the patient an excellent chance for recovery. Fuadin (neoantimosan) given intramuscularly is the drug of choice. Freshly prepared potassium antimony tartrate (tartar emetic) may be used and is considered superior by some if a satisfactory result is not obtained with the administration of fuadin. Anthiomaline is also used.

II. Clinical Characteristics of *Schistosomiasis Mansoni*:

Tingling of the skin, abdominal pains, diarrhea with blood, mucus and pus in the feces—the classical schistosomal dysentery. The liver and spleen become tender and progressively enlarged. The latest stages are characterized by cirrhosis of the liver, extensive damage to the colon and multiple fistulae, and in some instances are complicated by the development of carcinoma.

A. Diagnosis:

The clinical picture is so variable that demonstration of the characteristic lateral-spined ova is necessary to establish the diagnosis. Lesions which may often be seen through the proctoscope or sigmoidoscope are significant since they are usually discrete and separated by normal mucus membranes.

B. Treatment:

The treatment is similar to that for *Schistosomiasis haematobia*. Because of the greater involvement of the liver in many cases of *Schistosomiasis mansoni*, an intolerance of the drugs may develop. Furthermore, it is not always possible to effect a cure with a single course of treatment. Advanced chronic cases may prove refractory and it often happens that the liver may be damaged beyond repair.

III. Clinical characteristics of *Schistosomiasis Japonicum*:

The characteristics are similar to those seen in *Schistosomiasis mansoni*.

A. Diagnosis:

A diagnosis of *Schistosomiasis japonicum* can be made upon recovery of the characteristic ova from the stool.

B. Treatment:

As in the case of other *Schistosomiasis*, the various antimony salts are recommended.

Antimony compounds used in *Schistosomiasis*:

1. *Potassium antimony tartrate (tartar emetic)*:

Intravenous injections on alternate days of a freshly prepared 2% solution of the drug in sterilized distilled water are recommended. The initial dosage of 0.06 grams (3 cc.) should be doubled by the third dose. 0.12 grams (6 cc.) should then be injected every other day until a total of 1.3 to 1.8 grams has been administered. The patient should remain recumbent for a minimum of an hour after treatment in order to avoid respiratory complications.

a. Toxicology of Tartar Emetic:

Tartar emetic is irritating to the stomach, causing vomiting if sufficient is ingested. The drug acts as a capillary poison. Chronic poisoning is rare and may be associated with dermatitis, nausea, gastro-intestinal upsets, anorexia, headache and albuminuria.

b. Contra-indications:

If toxic reactions occur, the time interval between doses should be increased or treatment temporarily withheld. The use of tartar emetic is contra-indicated in diseases involving cardiac, respiratory, renal, hepatic and central nervous system disturbances.

2. *Fuadin (Neoantimosan)*:

Intramuscular injections of a 7% solution are recommended. On the first day give 0.105 grams (1.5 cc.); on the second day, 0.245 grams (3.5 cc.); the third day, 0.35 grams (5 cc.) repeating the latter dosage every other day for seven injections. Thus, in 17 days, the patient receives 3.15 grams. Five more injections may be given if necessary.

a. Toxicology:

This is a safer drug than tartar emetic but it is probably somewhat less efficacious. Local irritation, necrosis, nausea, bronchial irritation or marked liver damage do not occur following its judicious administration.

b. Contra-indications:

The toxicity of this drug is low and there are no contra-indications.

3. Anthiomaline:

Intramuscular or intravenous injection of 2 cc. of a 6% solution every other day are recommended until 10 doses have been completed (total: 20 cc. or 1.2 grams; total dosage should not exceed 1.38 grams). Intravenous injections are preferable.

a. Toxicology:

This drug is believed by some workers to be a more potent anthelmintic than tartar emetic in the treatment of Schistosomiasis. Local or general reactions are uncommon following the administration of this drug.

b. Contra-indications:

None recorded.

KALA-AZAR

I. Clinical Characteristics:

This is a disease produced by a protozoal organism, *Leishmania donovani*. It is characterized by irregular fever of long duration, chronicity, enlargement of the spleen and often of the liver, emaciation, anemia and leucopenia. The fever in the beginning is of the daily double-remitting type and is pathognomonic. It may be observed in 25% to 50% of the early cases. The first noticeable enlargement of the spleen may occur as late as five months after the onset of the acute phase, although it is usually at or below the costal margin by the end of the first month. The spleen has a doughy consistency in the early stage of the disease. In chronic cases the spleen is often hard and greatly enlarged, extending to the umbilicus or even to the anterior superior spine of the ilium. Soft enlargement of the liver is evidenced after the first month. As the disease advances a characteristic gray color of the skin develops, from which the synonym "black disease" is derived. The pigmentation is most noticeable on the hands, nails, forehead and center line of the abdomen. The leucopenia which is present shows a count below 4,000 and a relative increase in the lymphocytes and monocytes. Although anemia is usual, the red blood count

seldom falls below 2,500,000 and more commonly ranges between 3,000,000 and 4,000,000 per cubic mm.

II. Diagnosis:

Definitive diagnosis depends on the demonstration of *Leishmania donovani* in blood smears, blood cultures, spleen punctures and sternal punctures. Serologic diagnosis is based on the increase of the euglobulin fraction. When positive they provide suggestive, but not conclusive evidence.

III. Treatment:

Prior to the introduction of the antimony compounds, the mortality from Kala-Azar was 95%. It is now 2% to 5%.

A. Antimony compounds:

Neostibosan (Bayer 693) and Solustibosan (Bayer 561). The dosage and methods of administration are similar but neostibosan is recommended as less toxic and more effective. It should be given intravenously in 5% solution for adults, freshly prepared in sterile distilled water. The initial adult dose is 0.2 grams and subsequent doses 0.3 grams. Injections should be given daily for eight to twelve doses. If improvement is not evident, a two-week rest period is taken by the patient and a further course of injections should be given, using an initial dose, however, of 0.1 grams, because of possible sensitization.

1. Toxic effects:

Drug reactions of neostibosan are uncommon but serious when they occur. They are rarely encountered in the initial course of treatment. The reactions are anaphylactic in character with sudden onset of urticaria, nausea, vomiting, respiratory embarrassment and collapse, followed by death. This may be controlled by adrenalin promptly administered in sufficient dosage. Daily therapy should be continued using reduced dosage which, however, should be gradually increased to the standard daily amount of 0.3 grams.

B. Aromatic Diamidines:

These are the most powerful known drugs for the treatment of Kala-Azar and are indi-

cated for treatment of refractory cases which may be due to infection by a resistant strain of Leishmania or to drug fastness following a previous treatment with other antimony salts. These preparations may be very toxic and should be used only for resistant cases. The recommended drug is Stilbamidine. It should be administered intravenously in freshly prepared 1% solution in distilled water and given daily and very slowly. No individual dose should exceed 1 mg. per pound of body weight. The initial dose for an adult, irrespective of weight, should be 0.025 grams. This is increased by increments of 0.01 or 0.02 grams to an individual dose of 1 mg. per pound of body weight. A minimum of 10 injections, totalling 0.75 grams of drug per 100 pounds of weight of the patient, is required. The treatment should not be repeated without a rest period of at least one month.

I. Toxic effects:

Headache, flushing and sweating, faintness, epigastric pains, vomiting, collapse and unconsciousness. These symptoms can usually be controlled by a small dose of adrenalin immediately prior to the injection and a moderate dose after it.

IV. Prognosis:

The serious prognosis which attends untreated or incompletely treated cases necessitates long continued observation of the patient in the post-treatment period. The criteria of cure may be stated as complete cessation of fever for a period of several months, gain in weight, disappearance of splenomegaly, restoration of normal white blood cell and differential counts and disappearance of anemia.

REFERENCE

Manual of Tropical Medicine, by Mackie, Hunter and Worth. W. B. Saunders Company, 1945.

Members Released from Military Service

The following names of members released from Military Service have been reported to the office of the Maine Medical Association since publication of the list in the February, 1946, issue of the JOURNAL. In order that our records may be kept up to date, we again urge county secretaries and members to send to the office of the State Secretary, the names of members released from service not already published.

Androscoggin County Medical Society:

Mandalstam, Abe W., Lewiston

Cumberland County Medical Society:

Christensen, Harry E.,	Portland
Clancey, Daniel J.,	Portland
Daniels, Donald M.,	Portland
Davis, Paul V.,	Bridgton
Drake, Eugene H.,	Portland
Geyerhahn, George,	Portland
Ham, Joseph G.,	Portland
Hebb, Henry S.,	Bridgton
Laughlin, K. Alexander,	Portland
Munro, Burton S.,	Berlin, N. H.
Ottum, Alvin E.,	Portland

Franklin County Medical Society:

Colley, Maynard B., Wilton

Hancock County Medical Society:

Cameron, Dwight,	Northeast Harbor
Larrabee, Charles F.,	Bar Harbor
Sumner, Charles M.,	West Sullivan

Kennebec County Medical Society:

Hurd, Allan C., Gardiner

Knox County Medical Society:

Dennison, Frederick C.,	Thomaston
Soule, Gilmore W.,	Rockland
Wasgatt, Wesley N.,	Rockland

Lincoln-Sagadahoc County Medical Society:

Lenfest, Stanley R., Waldoboro

Penobscot County Medical Society:

Comeau, Wilfred J., Bangor

Piscataquis County Medical Society:

Curtis, John B., Milo

Waldo County Medical Society:

Nesbitt, Lester R., Bucksport

Washington County Medical Society:

Cobb, Norman E., Calais

The President's Page

In that delightful little medical periodical, "Medical Economics," beginning on page 87 of the February issue, is an article which all members of this Association should surely read. It is far from an agreeable message and constitutes an interesting and true exposé of Maine Medicine since the "Osteopathic Invasion" took place. To "wash one's soiled linen in public"—or to "cry over spilt milk" is foolish and childish and to keep on harping about something which can't be helped is decidedly boresome, I'll admit—but here we are brought face to face with a matter which will demand our attention for a long time in the future. The sequelae of this mess may not bother us older members but they vitally concern the younger men who will carry on for the next three decades. It does no good to "lock the barn door after the horse has been stolen" but obviously some steps must be taken by us medical men to prevent repetition of the debacle of the present day!

We must give whole-hearted attention to legislative matters in Augusta after January first and at our June meeting competent advice must be sought and sensible consideration given, relative to certain measures, which if enacted years ago would have obviated the necessity for the unfortunate condition and chaos in which we find ourselves today.

A little foresight—a little coöperation—a little coördination in effort, a bit of unselfish thought and a lot of FIGHT and we would be better off!

It's easy enough to talk and plan—but *please*, let each one of us give heed to the enormity of the situation—and let's do something about it—for a change! At the June meeting the opportunity will be yours!

ADAM P. LEIGHTON, M. D.,
President, Maine Medical Association.

Editorial

Are We Too Proud To Fight?

New England Newspapers Less Complacent Than the Doctors Themselves

Recently I have been collecting data on the President Truman Medical Health Plan, the Wagner-Murray-Dingell bills, and on Insurance Medicine.

I am pleased to find that many newspapers are publishing material which is against changing the present status of medical practice. Many newspaper editors, especially in certain midwestern states, gladly publish articles or letters in favor of keeping medical practice just as it is today.

I am herewith offering for reproduction in the MAINE STATE MEDICAL JOURNAL some verbatim quotations from January issues of New England newspapers.

From the "Biddeford Journal":

POLITICAL MEDICINE

I have been interested to read in the latest two issues of your paper the articles on the Wagner-Murray-Dingell bill. The first article was plain propaganda inspired by the proponents of the bill. The second was nearly of even tenor.

I have the bad luck to belong to a profession which is a small minority of our people. To me, as a doctor, the bill smells to heaven, though I am familiar with infection, pus, gangrene and physical corruption of all sorts.

This is because a small minority — the medical profession, is singled out of all the people of our country to be servants of the federal government, whether we want to be such servants or not.

A third of the regular doctors of medicine were taken into the armed services in the war. They suffered all the hardships of the services. Some of them lie in the soil of the battlefields, some of them in the bottom of the sea. Of the rest of us, aged and aging, I can say that we have done our best to care for the civilians at

home for now five long years. There has been only praise for what the doctors in the service did. There should be little criticism against what the civilian doctors did.

Why, then, are we to be compelled to join in a compulsory medical insurance scheme by Act of Congress?

It will be said that we will not be compelled—that taking part in it is voluntary. Still, if the thing goes through, many, if not most of us, will feel the compulsion. That is the very intent of the act. So far as it affects doctors there is no other intention. That is why 99 per cent of the doctors oppose it.

Why, then, the compulsion? To make a success of the act, of course. There is no way otherwise for it to succeed.

Why is the act proposed?

Huey Long, of flagrant memory, did very well with his slogan, "Every man a King." This is a plan to put every man in the place of a king who has a court physician at his call all the time. Huey had no copyright on his idea. Other politicians, less flamboyant, but no less cunning, are working on it. If popular "polls" show the people are for it, then God help any minority, for these politicians want only one thing above all others—re-election.

Now we may be sure that if this thing goes through, that will not be the end of compulsory government service for others. The next move may well be to compel carpenters to work on government housing projects or starve; for brick masons, plumbers, painters to engage in the same socialized government service. For it will be easy for the federal government, by its priority system, or by any act, to use all materials for such projects.

Germany had just such a system of socialized medicine, instituted by Bismarck to popularize the Kaiser — and Hitler profited by his example.

I shall certainly abuse your hospitality more, later on this matter.

(Signed) David E. Dolloff, M. D.

Biddeford, Maine.

From the "Record," Haverhill, Mass..

STATE MEDICINE.—If you are for it, you are liberal; if you are against parts of it, you are a reactionary. Tens of thousands of hard working doctors who are doing their utmost to carry forward America's high medical health standards, but who oppose certain parts of the President's program, will be termed reactionary.

And yet is it reactionary to point out that when the State compels every individual to contribute a part of his earnings toward support of a public undertaking, that undertaking must inevitably become the property of the State?

When the federal government forces a person to subscribe to a prepaid medical system sponsored by the government, is there any other name for it but "State Medicine?" Likewise, is it reactionary to point out that the obvious contradiction in the statement that patients will have a free choice of doctors, but doctors will not be compelled to join the program? Suppose the doctor you want is not a member of the state medical staff. Indications are that many doctors will not *permit themselves to be put on the government payroll unless forced to do so. In other words, in order to have your free choice you may have to pay your medical bill twice — once to the government for a doctor you don't want and again to the doctor of your actual choice.*

These are some of the questions the "reactionaries" are concerned about.

From the "Morning Union," Springfield, Mass.:

IMPROVED MEDICAL CARE.—*Shall we discard a proved plan for one we know nothing about, except that it would be costly to the taxpayers? Or shall we keep what we have, continue experimenting and eliminating the faults of a plan we know about? We believe the people prefer to keep a system of medical care which has been demonstrated to be basically sound. They are not likely to give it up for one that has never been tried and which there is good*

reason to believe would not work as intended, except at exorbitant cost and the loss of personal freedom.

From Cape Cod St. — "Times," Hyannis, Mass.:

Representative Charles L. Gifford of Cotuit discussed current problems facing Congress last night at the Rotary Club meeting in the Crescent Arms Hotel.

Mr. Gifford told the Club that he was against socialized medicine because "I want my own doctor."

From "Boston Post":

OPPOSE PLAN FOR U. S. CARE.—*Doctors say it does not provide a solution. Proposed laws now pending in Congress which seek to provide federally supported medical care fail to provide a proper solution for present day health problems, the Council of the Massachusetts Medical Society stated at its last meeting.*

From the "Bangor News":

FOR A MEDICAL CZAR.—Bangor, despite the splendid efforts of its remaining doctors and dentists, has suffered from the shortage in the personnel of their profession during the four war years. So has the rest of the country.

If Congress passes the new Wagner-Murray-Dingell bills, Bangor will soon be suffering in the same way—more. And so will the rest of the country.

Years ago, the game of baseball got a czar; now it is suggested that the profession of medicine should have one. Years ago, the motion picture entertainment industry voluntarily accepted a dictator; now it is seriously planned to put into the hands of a single autocrat, at the peoples' expense, the health and lives of the majority of the people.

Does this sound incredible? Only until you analyze those projected laws. Then, however, the evil stands starkly revealed.

There are the bills' provisions regarding grants-in-aid for medical education and research. They will total up to \$80,000,000 annually. Sounds good, even if you'll be taxed for it? Wait a moment. The practical expending or allocation of this vast sum will be entirely in the gift of one person — the Medical Czar at Washington: the Surgeon-General.

Oh, yes—he will be supposed to consult an “Advisory Council.” What, however, are its powers? They are solely to “advise.” The bills are specific:

“The Surgeon-General is hereby authorized and directed to administer grants-in-aid.”

And that’s the least of the power which Messrs. Wagner, Murray and Dingell would give to the official in question. These gentlemen propose to provide “full medical, dental, nursing and laboratory care and hospitalization for 110,000,000 people” through a system under which the Surgeon-General, “conditioned solely by the approval and direction of the Federal Security Administrator” will have the power:

To hire all the doctors, dentists, laboratory-technicians involved, and to fix their wages;

To declare what hospitals and clinics may provide the service, and under what conditions;

To determine how many patients each doctor or dentist may treat.

Small wonder that the National Physicians’ Committee for the Extension of Medical Service should say: “If all the provisions of this—legislation are put into operation they will destroy the private practice of medicine in the United States.”

“You won’t call your doctor. You’ll call the doctor the Surgeon-General says you must call.”

To the Bangor editorial I would like to add for the public to read:

Your *Feurher*, the Surgeon-General, of course can be trusted to do what is best for you. You will stand in line to fill out a blank and then wait endlessly for the red tape to unwind in the slow hands of disinterested government-paid clerks. Then you will probably get a young dictatorial doctor who has never been in private practice as we have it today. He will make every decision for you, whether or not you have confidence in him. He will not be working for you but for the bureaucrat. You do not pay him directly, though you pay him dearly indirectly. You will not only pay him but will also pay the many others who will be middlemen, interfering, and spreading on the open record your private affairs, not helping you in any way to get satisfactory medical care. You will have no control over them, for their orders will all come from the *feurher* (the Surgeon-General), and you can do nothing about it. You will be a slave in the Servile State you allowed to develop.

Like other large government agencies employing many thousands of well-paid clerks, if it is once created it cannot be killed. You will have “not for a day, not for a year, but always,” — this unneeded, unwanted medical bureaucracy.

ADRIAN H. SCOLTEN, M. D.,
Portland, Maine.

Wagner-Murray-Dingell Bill Hearing Scheduled for March 18th

A recent telegram received by the Secretary of the Maine Medical Association from Mr. J. W. Holloway, Jr., Director, Bureau of Legal Medicine and Legislation of the American Medical Association, states that the “Senate Committee on Education and Labor has scheduled hearings on the Wagner-Murray-Dingell Bill, S-1606, to commence on Monday, March 18th. Hearings are expected to run about one month.”

Postponement of Wagner-Murray Bill

Today, March 8th, the Senate Committee on Labor and Education is announcing that the hearings on the Wagner-Murray Bill which were announced to begin on March 18th will begin on Tuesday, April 2nd.

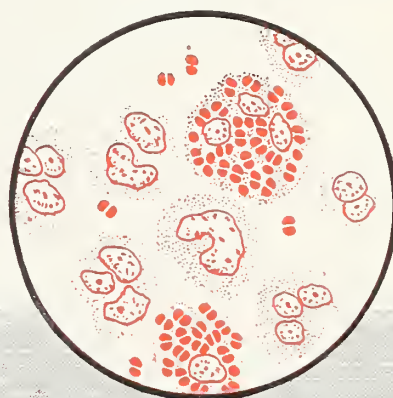
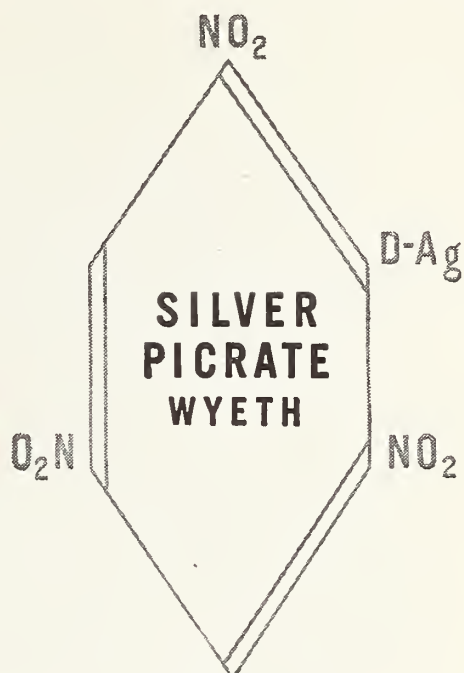
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County Society Notes

100% Paid Membership for 1946

Piscataquis County Medical Society
Hancock County Medical Society

Cumberland

Adam P. Leighton, M. D., of Portland, President of the Maine Medical Association, and Mrs. Leighton, are registered at the Sea Ranch Hotel, Fort Lauderdale, Florida, for a six weeks' vacation.

Hancock

A regular meeting of the Hancock County Medical Society was held at the Hancock House, Ellsworth, Maine, on Wednesday evening, February 13, 1946.

It was voted that the society go on record as being opposed to the Wagner-Murray-Dingell Bill.

It was voted to approve Hiram A. Holt, M. D., of Winter Harbor, for Honorary Membership and the Maine Medical Association's Fifty-Year Medal.

J. Robert Feeley, M. D., of Bangor, spoke to the society about some of the Orthopedic Procedures carried out by the Maine Hospital Unit in the E. T. O. A general discussion period followed his talk.

J. H. Crowe, M. D.,
Secretary.

Knox

Major William A. Ventimiglia, M. C., Clinical Director, Veterans' Administration, Togus, Maine, addressed the Knox County Medical Association at a meeting held February 12th at the Copper Kettle, Rockland, Maine.

FREEMAN F. BROWN, JR., M. D.,
Secretary.

Kennebec

A regular meeting of the Kennebec County Medical Association was held at the Augusta House, Augusta, Maine, on Thursday, February 21, 1946, at 6.30 P. M.

The following physicians were elected to membership in the Association:

Howard H. Milliken, M. D., Hallowell; Ralph N. Harris, M. D., Togus; Robert H. Dunn, M. D., Togus; Stephen Mazzola, M. D., Togus; Stanley J. Staciva, M. D., Togus; and Benjamin Newman, M. D., Togus. Kenneth W. Sewall, M. D., Waterville, transferred his membership from the Massachusetts Medical Association.

Following the business meeting, a most interesting talk, illustrated by lantern slides, on the subject "Present Trends in Treatment of Varicose Veins" was given by Dr. Kenneth W. Thompson of Boston, Mass.

M. TIECHE SHELTON, M. D.,
Secretary.

Penobscot

The monthly meeting of the Penobscot County Medical Association was held at the Bangor House, Bangor, Maine, February 19, 1946.

Among items of business the Association voted to approve the name of Dr. Edward P. Goodrich, of Winterport, to receive the Fifty-Year Medal given by the State Association. Dr. Winford C. Adams, 142 North Main Street, Brewer, was elected a member of the County Association. Dr. William A. Purinton, of Bangor, was received in membership by transfer from the Lincoln-Sagadahoc Medical Society.

There were discussions relative to problems confronting our State Association and a Committee of Policy was appointed to help formulate plans for informing our members and instructing our delegates relative to matters of interest to the Association.

The speaker of the evening was Edwin Astwood, M. D., Endocrinologist at the Pratt Diagnostic Hospital, Boston. The subject of Dr. Astwood's paper was *The Medical Treatment of Hyperthyroidism*.

There were 45 present.

FORREST B. AMES, M. D.,
Secretary.

Piscataquis

A meeting of the Piscataquis County Medical Association was held in Dr. E. D. Merrill's home, Dover-Foxcroft, Maine, February 24, 1946.

This being Dr. Merrill's 82nd birthday, the meeting was a birthday party given by Dr. and Mrs. Merrill to the members of the Piscataquis County Association, and their wives.

After a delicious supper there was a short business meeting. A letter from Fred L. Varney, M. D., formerly of Monson, was read. It was voted that Dr. Varney be elected an honorary life member of the Piscataquis County Association and that the Secretary be instructed to write a note to Dr. Varney expressing our sympathy for him in his crippled condition.

A communication from the American Medical Association regarding Fellowship and Membership was read.

A communication from our Councilor, Forrest B. Ames, M. D., of Bangor, was read. It was voted that our next meeting be held in Guilford, May 23, 1946, and that Dr. Ames, and Dr. Edward L. Herlihy, be the speakers.

The application of Phillip Thomas, M. D., of Monson, was read and referred to the Board of Censors.

Following the business meeting, Dr. Nickerson related some of his experiences in the Army.

A fountain pen of the two-year type was presented to Dr. Merrill from the Association by Vice President Valentine.

N. H. NICKERSON, M. D.,
Secretary.

Coming Meetings

Cumberland

The next meeting of the Cumberland County Medical Society will be held in Portland, Maine, Friday, April 26th.

Speaker: Dwight Harkins, M. D., Boston, Massachusetts.

Subject: Thoracic Surgery.

Place and time of meeting will be published in the April issue of the JOURNAL.

JOSEPH E. PORTER, M. D.,
Secretary.

New Members

Kennebec

Robert H. Dunn, M. D., Togus, Maine.

Ralph N. Harris, M. D., Togus, Maine.

Stephen Mazzola, M. D., Togus, Maine.

Howard H. Milliken, M. D., Hallowell, Maine.

Benjamin Newman, M. D., Togus, Maine.

Kenneth W. Sewall, M. D., Waterville, Maine.

Stanley J. Staciva, M. D., Togus, Maine.

Penobscot

Winford C. Adams, M. D., Brewer, Maine.

William A. Purinton, M. D., Bangor, Maine (by transfer from the Lincoln-Sagadahoc County Medical Society).

News and Notices

Piscataquis County Again First With 100% Payment of Dues

The Piscataquis County Medical Society has for the eleventh consecutive year been first to send in 100% payment of State dues. This is a record that the officers and members of the Piscataquis County Society can well be proud of, and one worthy of mention in the pages of this, the official organ of the Association.

Public Relations Committees Meet

Frederick T. Hill, M. D., Chairman of the Public Relations Committee of the Maine Medical Association, presided at a meeting of the public relations committees of the Maine Hospital Association,

Women's Field Army of Cancer Control, the State Bureau of Health, the Maine Public Health Association, the Associated Industries of Maine, and the Maine Medical Association, held at the Elmwood Hotel, Waterville, Maine, Wednesday, February 20th. This was the second in a series of meetings aimed toward the promotion of an education program in disease prevention.

Farmington Hospital Gets \$20,000 Bequest

In the will of the late Jonas B. Look, who died January 19th, a bequest of \$20,000 was made to the Franklin Memorial Hospital at Farmington to be held in trust, the income to be used for "general purposes."

Mr. Look was a native of North Jay. He passed most of his life as a jeweler in Mattapan, Massachusetts. He retired about twenty years ago, and returned to this town, where he lived until his death.

Opening for General Practitioner in Maine

Orono (3052), Penobscot County

Opening for physician on staff of Student Health Service at University of Maine, Orono. Write Joseph M. Murray, Health Service Committee at University.

Maine Veterinary Medical Association Meeting on Undulant Fever

The Maine Veterinary Medical Association is inviting the members of the Maine Medical Association to attend a meeting at the Falmouth Hotel in Portland, on April 17, 1946, when Dr. Harold J. Harris of New York City will speak on "Brucellosis in Humans." The scope of his talk will be diagnosis and treatment.

The meeting is a gesture of acknowledgment and appreciation to the Cumberland County Medical Association for invitations extended last year to the Maine Veterinary Medical Association to attend a similar meeting.

Detailed announcements of the meeting will be mailed to you soon.

American Board of Ophthalmology Cape Cottage, Maine Preceptorships

In regard to the substitution of a preceptorship for residency in an ophthalmic hospital, the American Board of Ophthalmology has always accepted such training in favorable cases. During the present overcrowding of facilities, the Board expects to take a liberal attitude regarding the requirements for training.

It should, however, be pointed out that neither a residency nor a preceptorship suffices in itself to meet the requirements of the Board. Each case will still be judged on its merits in determining fitness for examination.

In entering upon preceptorship certain conditions should be kept in mind. First, the student will profit most after a sound course in the basic sciences of physiology of the eye and of vision, optics, pathology, bacteriology, chemistry, pharmacology, the relation of the eye to general disease, anatomy, embryology and neurology.

This is essential for a residency, more so for a preceptorship. While men have been accepted from preceptors not diplomates of the Board, it is obvious that the Board has more information about those teachers who have passed its examinations.

Any preceptor should understand that he is assuming a responsibility in taking a student and is not merely obtaining help in the drudgery of his office. He should be willing to give time to clinical training and the use of apparatus, slit-lamp, ophthalmoscope, tonometer and to directing the student's practice in surgery on animal eyes, assisting in operations and ultimately in the performance of them.

To cover the same amount of ground will take much longer in a preceptorship than in a residency and students should accept opportunities to take hospital positions of all sorts as they become available.

S. JUDD BEACH, M. D.,
Secretary.

American Association of Obstetricians, Gynecologists and Abdominal Surgeons

The American Association of Obstetricians, Gynecologists and Abdominal Surgeons Foundation announces that the annual prize contest will be conducted again this year.

For information address—Dr. Jas. R. Bloss, Secretary, 418-11th Street, Huntington 1, W. Va.

The A. P. A. A. (Ninth) 1947 Exhibition*

The A. P. A. A. (Ninth) 1947 Exhibition to be held at Atlantic City, on the occasion of the Centennial Session of the American Medical Association, will also be the occasion of the judging of the "Courage and Devotion Beyond the Call of Duty" Art Prize Contest (\$34,000 in Savings Bonds).

This contest was originally scheduled for the 1946 A. M. A. Session but has been postponed one year, upon the best advice, in order to give more physicians an additional year to complete their art pieces on this special prize subject.

* For further information regarding both the San Francisco 1946 and the Atlantic City 1947 Art Exhibits, physicians may write either the American Physicians' Art Association Secretary-Treasurer, Dr. Francis H. Rodewill, Flood Building, San Francisco, Cal., or the sponsor, Mead Johnson & Co., Evansville 21, Indiana.

American Urological Association

Urology Award—The American Urological Association offers an annual award "not to exceed \$500" for an essay (or essays) on the result of some specific clinical or laboratory research in Urology. The amount of the prize is based on the merits of the work presented, and if the Committee on Scientific Research deem none of the offerings worthy, no award will be made. Competitors shall be limited to residents in urology in recognized hospitals and to urologists who have been in such specific practice for not more than five years. All interested should write the Secretary, for full particulars.

The selected essay (or essays) will appear on the program of the forthcoming meeting of the American Urological Association, to be held at the Netherland Plaza, Cincinnati, Ohio, July 22-25, 1946.

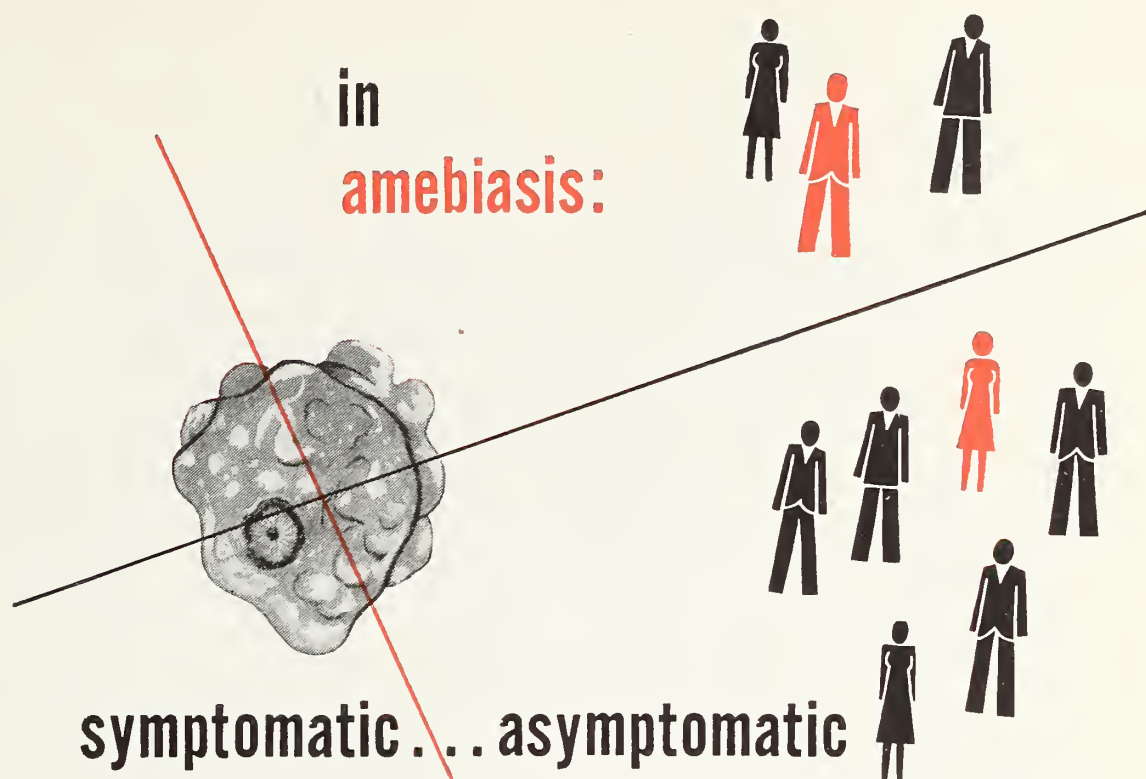
Essays must be in the hands of the Secretary, Dr. Thomas D. Moore, 899 Madison Avenue, Memphis, Tennessee, on or before July 1, 1946.

Surplus Government Medical Equipment

Medical Officers are eligible to purchase surplus Government property which includes professional and scientific supplies, instruments and apparatus.

Applications in Maine should be made to the War Assets Corporation, care of Mr. R. W. Foster, District Manager, 142 High Street, Room 610, Portland 3, Maine.

When making your application it will be necessary for you to present your Honorable Discharge or inactive duty orders. You will be required to describe the property you desire to purchase and to certify that you require it for your own professional use.



Barr¹ states: "... it is just as important to treat properly the symptomless 'carrier' of this parasite as to treat the patient suffering from amebic dysentery."

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DIODOQUIN

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SEARLE Research in the Service of Medicine

Doctors Needed to Man State and Local Health Departments

Surgeon General Parran Reveals That 900 Full Time Medical Positions Are Now Vacant; Makes Plea For Training

Thomas Parran, M. D., Surgeon General of the U. S. Public Health Service, says that the nation is in need of physicians to man its state and local health departments.

Writing in the December 22 issue of *The Journal of the American Medical Association*, Dr. Parran states that a recent survey conducted by the U. S. Public Health Service revealed that there were 3,000 full time medical positions in state and local health departments. "Nearly 900 of these positions are now vacant," he says, adding: "Half of these vacant positions are being held for individuals on leave in the military services. The other half are vacancies without restrictions waiting to be filled by qualified physicians."

Need for Medical Books in Manila

Some months ago, the Academy-International of Medicine and Dentistry moved its executive office from St. Paul, Minnesota, to the Liberty Building, Topeka, because of its central location. According to the executive secretary, Mr. J. B. Young, one of the projects of this organization is to attempt to supply

the destroyed medical library at the University of Manila with sufficient books to enable the school to operate. It is well known that the Japanese destroyed the university and its library until almost no piece of usable equipment remained.

The Academy-International of Medicine is appealing to the medical profession all over Canada and the United States to donate books that may be sent to Manila. Already 10,903 individual publications are in transit and many more are needed. 'These books have come from individuals, from medical libraries, medical schools and clinics.

Maine doctors are invited to assist in this worthwhile undertaking through the contribution of books, periodicals or cash. Doctors willing to donate books should first write to Academy-International of Medicine, Liberty Building, Topeka, (Kansas), giving the names and authors and edition numbers of the books that are available. In an effort to send only material that is critically needed and to avoid duplication, all gifts should be cleared before they are sent. The donor will then be instructed which of these books are desired.

If cash is given, the donor may be assured that all money will be used for the purchase of needed texts, that arrangements have been made with leading publishers to sell books for this purpose at cost, and that they will be forwarded immediately to the School of Medicine, University of the Philippines. Make all checks payable to: Manila Library Fund, A-I. M.

HOSPITAL STAFF MEETINGS

Open to the Profession

CITY	HOSPITAL	DATE
Augusta	Augusta General Hospital	1st Wednesday
Bangor	Eastern Maine General	2nd Tuesday
Bath	Bath Memorial Hospital	1st Tuesday
Belfast	Waldo County	2nd Friday
Boothbay Harbor	St. Andrew's Hospital	4th Tuesday
Caribou	Cary Memorial	1st Wednesday
Damariscotta	Miles Memorial	1st Thursday
Lewiston	Central Maine General	1st Monday
	St. Mary's General	2nd Monday
Portland	Maine Eye and Ear Infirmary	1st Wednesday
	Maine General	2nd Friday
	Mercy	3rd Thursday
Presque Isle	Presque Isle General	1st and 3rd Tuesdays
Rockland	Knox County General	1st Monday
Rumford	Rumford Community	4th Wednesday
Sanford	Goodall Memorial	2nd Monday
Waterville	Sisters	2nd Tuesday
	Thayer	Every Thursday

The above list was compiled from a questionnaire sent out by the Maine Hospital Association. Additions or corrections will be made on notification to the Secretary, Maine Hospital Association, Thayer Hospital, Waterville.

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From where I sit by Joe Marsh

Professor Zogi, The Magician Marvelous!

Professor Zogi, the magician, came to our town Saturday, and put on a performance for the benefit of the hospital.

Among other things, the professor holds a pitcher in his hands, and asks folks what they'd have to drink. Ma Hoskins asks for buttermilk and the professor promptly pours her a rich, creamy glassful.

Then Zeb Collins asks for cider, and out of the same pitcher comes a mug of cider. Dr. Walters calls for beer—and, presto, from the pitcher comes a sparkling glass of beer!

"Just goes to show," says the doctor, astonished, "that it takes a magician to satisfy all tastes."

From where I sit, the professor has a mighty good act . . . one that points a moral too. Tastes differ—but people can have a friendly, happy time enjoying the beverage that each prefers—and being tolerant of one another's preferences.

Joe Marsh

Malaria in the United States Continued from page 68

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Book Review

"The Care of the Aged" (Geriatrics)

By: Malford W. Thewlis, M. D., Attending Specialist, General Medicine, United States Public Health Hospitals, New York City; Attending Physician, South County Hospital, Wakefield, R. I.; Director, Thewlis Clinic; Special Consultant, Rhode Island Department of Public Health.

Fifth Edition. Thoroughly Revised with 65 Illustrations.

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This is the fifth edition of this book to appear in seventeen years. It has been thoroughly revised and brought up to date. Much new material has been added.

The book is divided into eight parts: General Considerations, Geratology, Medicolegal Relations, Miscellaneous Geriatric Problems, Diseases of Metabolism and Endocrine Disorders, Infectious Diseases and Focal Infection, Systemic Pathologic Conditions, and Special Topics.

Geriatrics has developed into a medical specialty of considerable importance and the medical practitioner will find this book distinctly worth while.

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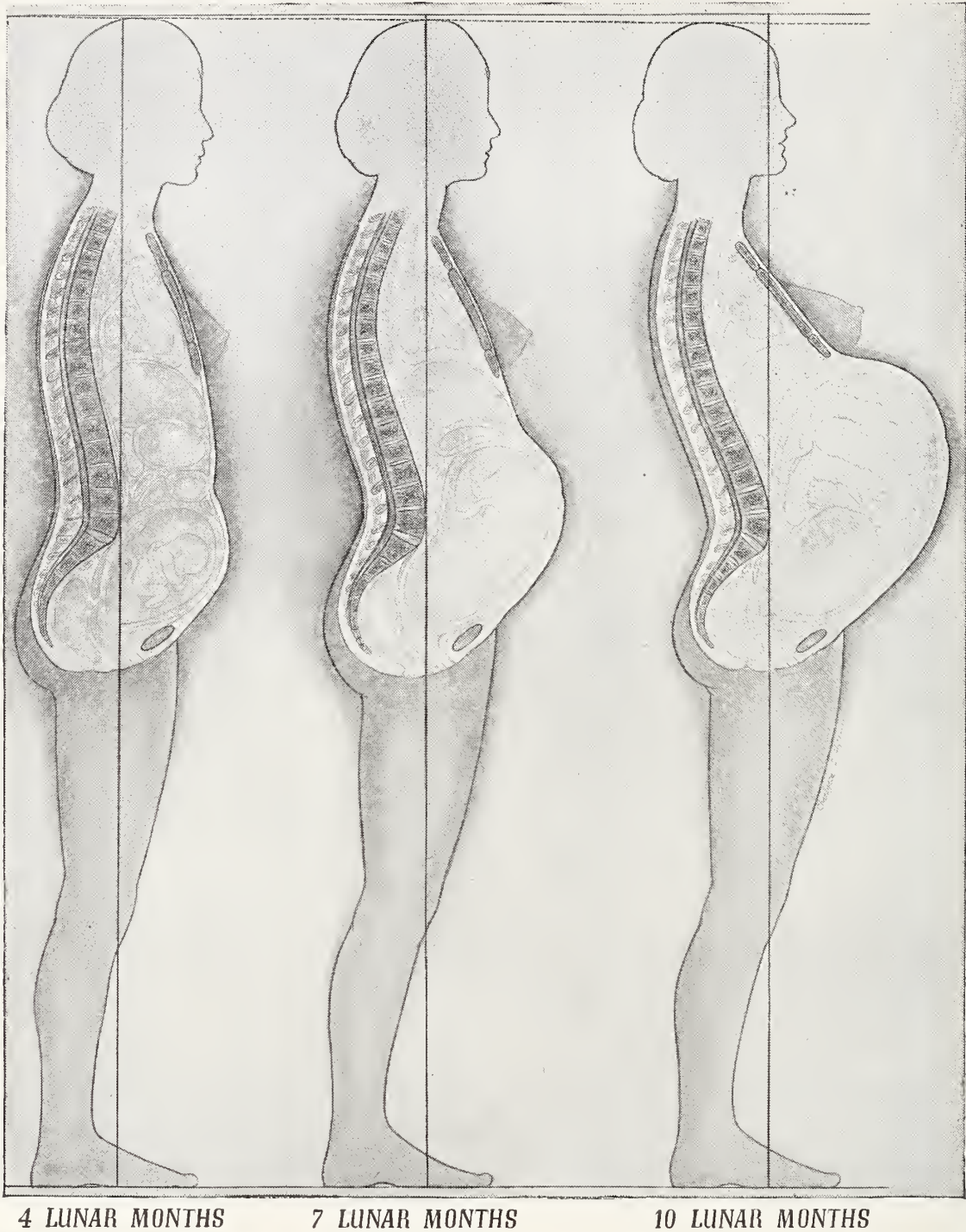
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The Journal of the Maine Medical Association

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Portland, Maine, April, 1946

No. 4

The Use of Radiation in Malignancy

FORREST B. AMES, M. D., Bangor, Maine*

Since the beginning of the broadened scope of the American Society for the Control of Cancer, and its State Assistants, the Women's Field Army, in 1936, there have been three basic fields of activity, — Education, Care of Cancer Patients and Research. Under the auspices of the recently reorganized American Cancer Society, and its even more active subsidiaries, the constituent Field Armies, the scope and activities of these three fields have been amplified and coördinated with plans for greater efficiency in the fight to control the great death dealer—Cancer. Sponsored by laymen, in close coöperation with the medical profession and scientific research workers, the first field of activity, Education, has become well organized, and has grown very rapidly; in fact, at times the rapidity of spreading knowledge has seemed to tax the medical facilities for meeting the needs of those sufferers seeking help.

It is my understanding that meetings of the sort we are now attending in this two-day conference are held in order to compare progress notes and, by interchange of ideas, to further strengthen the methods of approach to the problem of cancer as a whole.

Feeling that the lay members of our organizations are well handling the first of our triple activities, may I discuss for a while some of the problems which confront those of us in the medical profession who are endeavoring to provide proper care for the cancer patients. I will approach the subject of "The Use of Radiation in Malignancy," by following patients into the Tumor Clinics, consider their reception and application of treatment and discuss some of the problems which present themselves for future action.

You are familiar with the set-up of Tumor Clinics through which the Field Army works. These Tumor Clinics are not established by the Field Army, as this is an organization of laymen. Rather, they are medical groups, organized in recognized hospitals with a grouping approved by the American College of Surgery. Their personnel must include an internist, a

* Roentgenologist, Eastern Maine General Hospital, Bangor, Maine.

Read before the Regional Conference of New England, American Cancer Society, Boston, Mass., February 4, 1946.

surgeon, the hospital radiologist and pathologist, and specialists in various lines of medical work. A record clerk, nurses and special assistants coördinate the preparation of patients and carry out orders as given by the medical members of the group.

To these Tumor Clinics come persons, brought to a realization of the potential danger to their health by some untoward signs or symptoms to which their attention has been called,—perhaps by contact with the information which the Educational Campaign has made available. Fortunately, not all of these individuals have cancer. This is a fact which should be often stressed as many, trusting ignorance to be a safeguard, may fail to seek advice in time.

However, for those whose examination by the Medical Staff shows the presence of definite or suspected malignant disease, methods of accurate diagnosis and treatment must be applied. The basis for adequate treatment of malignancy lies in the accuracy of the diagnosis of the condition present. Accuracy of diagnosis has its foundation in the operating room and pathology laboratory. Removal from the host of a section of the suspected malignancy and careful study of the tissue under the microscope serve to establish the presence or absence of malignancy, the type of growth, and in general, the susceptibility of the growth to possible cure by radiation if such is to be applied.

A basic rule relative to the curability of cancer is that the earlier a malignant growth can be discovered, and the most completely it can be destroyed, the greater is the prospect for permanent cure.

With the above statement in mind two chief methods of treatment may be considered. (1) Surgery, with removal of the malignant growth or, (2) Application of radiation, in the form of either radium or X-ray. Accessibility of the growth and histological type will often determine the choice of type of the curative agent.

In a discussion of this kind time does not suffice to deal at any length with the methods of application of Radiation Therapy. In the medical field, however, I am pleased to note that even as we meet, there is being held, in the city of Philadelphia, under the auspices of The American College of Radiology, a full week's post-graduate course on the application of Ra-

dium and X-ray to various types of malignant disease. This well emphasizes the growing importance of post-graduate instruction of medical men in the use of these modalities for combatting cancer.

At this time it seems proper to present a brief story of the discovery of the X-ray and radium. Thus, we can do honor to those scientists who gave to the world these great means for helping sick humanity.

During the past 3 months, medical scientists have taken note of and celebrated, the 50th anniversary of the discovery of X-ray by William Conrad Roentgen. Roentgen was born March 27, 1845, in Lennep in Bergischen, Germany, his father a German and his mother Dutch. After early years of student life, William matriculated in the Polytechnical School at Zurich, Switzerland, where he laid the foundation for his love of the science of physics. He continued in teaching and later became director of the new Physical Institute at the University of Wurzburg. He began experimental studies in cathode rays and while engaged in this research work, he made his startling discovery of the X-ray, on November 8, 1895. Early in January, 1896, news of this discovery was broadcast to the world. The innumerable practical uses to which this great discovery can be put are even now being explored and studied. Many advances took place in the lifetime of Roentgen, who died in Munich, February 10, 1923.

Discovery of radium came about through the laborious studies of Madam Marie Curie and her scientist husband, Pierre Curie. After many years of patient work under great handicaps, these two were able to produce a tiny quantity of pure radium and thus definitely established the existence and character of this new element in 1902.

In medical work radium is applied in the form of the element or radium salt or in one of its disintegration products, radium emanation or radon which is a gas possessing the property of radio activity.

The X-rays or Roentgen Rays, as they have been named; in honor of the discoverer, are applied to the human body at various strengths and types, depending on the electrical power of the apparatus used and the type of filters used to control passage of the desired rays to the body surface or into the body tissues. In gen-

eral terms, we use so-called superficial X-rays for lesions on the body surface where but little depth is present, and rays from medium, high, and super-voltage machines to produce filtered and deeply penetrating rays for areas within the body structure. In practical therapeutics up to 1 million volts are used although machines of much higher capacity have been constructed. In most clinics, a 200,000 volt machine has been well standardized and is used for treating most forms of cancer.

The action of radium and X-rays on the tissues is for practical purposes the same from a biological standpoint. Action on the cancer cells seems to a certain extent selective, that is, the activity of the cancer cells is retarded, and in the favorable cases the malignant tissue dies and the healthy body cells heal up the wounded area and the patient becomes cured.

The application of radium and X-ray to malignancy becomes thus a procedure which requires high medical specialization. To apply the right force of destruction without injury to the patient as a whole, demands extreme care and medical judgment.

Having journeyed for a while in the field of medical history and considered briefly the background of our instruments of attack against potential and real inroads to health, let us return to our Tumor Clinic patients and consider a few of the more important malignant conditions which require the use of radiation for their attempted cure.

Tumor Clinics in different cities will naturally vary somewhat in the percentage of types of cancer. In general, however, we find that we may class malignancies according to parts of the body as follows:

1. The Skin.
2. The Breast.
3. The Pelvis — Female and Male.
4. The Head and Neck.
5. Abdominal Organs.
6. Chest.
7. Diseases of the Blood and Hemopoetic Organs.

If you were to listen to Radiologists from different clinics you would hear some divergence of opinion as to the application of radium or X-ray in certain conditions. However, basically the difference is more apparent than

real and is often based on the availability of the element radium and its derivatives, in themselves expensive agents, and the particular interests of the operators. Remember, however, that the aim of all is to destroy the malignant cell with the least possible damage to healthy tissue and the end result to the patient is the final test.

Let us consider the conditions above named:

1. The skin. Malignant lesions of the skin may be treated surgically if complete removal seems reasonably sure and damage to the surrounding tissue not too severe. Radium in element or as seeds may be applied, or X-ray, with limiting cones of lead, may be used. The reaction to these applications produces marked changes in the tissues, and in a high percentage, shedding of crusts is followed by smooth healing of the skin, leaving a minimum scar.

2. The female breast offers a fertile field for skillful surgery. Here the earliest lesions offer the best prospect for cure, especially if radical removal is performed. The question of radiation before and after operation is argued by some and it is even suggested that by careful selection of cases, surgery alone will suffice. However, where complete extirpation cannot be well assured, X-ray should never be omitted.

3. The pelvis, especially the uterine cervix, is now best treated by a careful course of external radiation with X-ray, followed by radium needles and pack. Here again finding the early lesion is of paramount importance for securing cure. Cancer in the male pelvis responds less favorably to radiation procedures.

4. Malignant tumors of the head and neck are more easily handled by the use of X-ray or X-ray in combination with radium in certain more accessible parts.

5. Malignancies of the abdominal organs are unfortunately not discovered until late and if surgery is not possible, the outlook as to life is extremely gloomy.

6. Malignancy in the chest seems to be on the increase. By refinements in intrathoracic diagnosis, by use of the bronchoscope and contrast media, many lung tumors can be diagnosed early enough for surgical removal, even removal of whole lobes of the lung. External radiation is of worth-while value.

7. Diseases of the blood and blood forming organs, leukemias and lymphoblastomas offer a field for marked palliation and probable prolongation of life, or at least more comfortable existence, if treated by the X-ray.

Thus our patients with cancer have approached the Tumor Clinic, have been studied and classified by the specialists who staff the clinics and have been referred for treatments, surgical, radium or X-ray. Many, fortunately, are proved to have no cancer. For them the educational campaigns of our Cancer organizations have restored hope for the future. Some are found who have early cancer. These leave the hospitals cured, to pursue a normal life. Others are relieved of much pain and suffering and their days are prolonged. Others, sad to state, seemed doomed to die a death preceded by mental and physical pain.

It is for these latter ones, those who seemed doomed to be overcome by the malignant growth on or within them that the struggle for progress is intensified. It is for them that more efficient methods of application of radiation must be found.

It is for all those fortunate and unfortunate individuals who pass through our Tumor Clinics and hospitals that I bespeak the establishment of more ample and more widespread facilities for the application of radium and X-ray treatments. As I said in the beginning our educational campaign has well-nigh overrun our ability to furnish adequate treatment for those who seek our help. In the State of

Maine, as I dare say must also be true in other states, we need more diagnostic centers and also very seriously need more facilities for applying treatment. I am not forgetting the care of the cancer patient. To die by slow disintegration is a horrible end. To be eased along by skillful medical and nursing care is a boon to be craved and if possible provided by the funds of those who have to date escaped the ravages of cancer. You should consider well the expenditure of large sums of your cancer funds for the treatment and care of the cancer patients.

To complete our triad, I mention in closing the third of our fields of endeavor, Research. To steer the cancer patient through education to the Tumor Clinics is part of the present plan. To supply them with more and better treatment and medical care is the least we can do at the moment. But never must we lose sight of the day when cancer can be eradicated, not by destruction within a half destroyed human being but can be prevented from beginning its destructive course. When the cause or causes of cancer are discovered, mankind will be relieved of one of its greatest scourges. We may well hope that the scientific minds which have carried us into the atomic age, itself an expression of radio-activity of which radium and the X-ray are but a part, may some day uncover the secret of the bandit cells in the human body and find ways and means of destroying these cells before they can destroy their host.

Tuberculosis is intimately linked with nutrition, both because the disease is common under famine conditions, and because an individual's lowered resistance is connected with appetite disorders, and wrong dietetic habits. One-third of tuberculous people cannot obtain a proper diet on account of inadequate income. Better nutrition for all will enable the community to shoulder the burden of its tuberculosis, and gradually diminish the weight of that load.—*NAPT Bull.*, England, June, 1945.

Industrial X-ray programs are likely to play a major role in tuberculosis control during the next decade. Editorial, *Am. Jour. P. H.*, Nov., 1945.

Most of the permanent value of a tuberculosis survey program depends on a thorough follow-up of definite and suspicious cases in regular diagnostic clinics where the history, physical, laboratory and X-ray findings permit accurate evaluation of the status of the patient's disease. — Rep't Cattaraugus Co. (N. Y.) Health Dept.

Extreme care must be exercised to ensure that no cases be stigmatized with the diagnosis of tuberculosis or tuberculosis suspect on one roentgenographic observation. Careful clinical history and physical examination are still required for diagnosis.—Carleton B. Peirce, M. D., et al, *Am. Rev. Tbc.*, July, 1945.

Rat-Bite Fever

JOSEPH E. PORTER, M. D., and THOMAS A. FOSTER, M. D., Maine General Hospital,
Portland, Maine

The bite of a rat may be followed by a clinical syndrome characterized by fever, generalized rash, arthritis, leukocytosis, and in an occasional instance, by nephritis and death. There has been a great deal of confusion in the past regarding the etiology of this condition, and it was not until 1916 that Futaki¹ and his associates isolated a spirillum from the blood of patients who had been bitten by rats. They demonstrated a similar organism in house rats in Japan. This organism has since been named the *Spirillum Minus* by Robertson.² Schottmuller,³ in 1914, cultured a streptothrix from the blood of a patient ill with rat-bite fever; this organism was named *Streptothrix Muris Ratti*. Lemierre,⁴ in 1937, recovered from the blood of a patient who had been bitten by a rat, an organism identical with the *Streptobacillus Moniliformis*, which was described in 1925 by Levaditi⁵ and his associates in a case of acute erythema multiforme, in which there was no history of rat-bite. There have been numerous similar cases occurring in this country since that time, associated with and without rat-bites. The organism isolated from cases of Haverhill fever by Parker and Hudson,⁶ in 1926, and named *Haverhillia Multififormis* by them, is no doubt the *Streptobacillus Moniliformis* of Levaditi.

Regarding the treatment of the disease, some cases have responded well to arsenicals; however, a certain percentage recovered without any treatment. Relapses may occur, and the mortality as stated by Tice is 10%. Prophylaxis has been suggested by some authors, and consists of cauterization and the application of 5% phenol to the wound. Hata,⁷ in 1912, reported results in 8 cases which were treated with a single injection of 0.3 gm. of Salvarsan; 5 were cured. The first experimental data on the treatment of this disease with penicillin was reported by Lourie and Collier,⁸ in 1943. They concluded that 250 units of penicillin given one-quarter hour after the inoculation of a mouse with the *Spirillum Minus* prevented the development of blood stream infection.

Furthermore, a single intraperitoneal injection of 10 units of penicillin in mice with an established infection cleared the blood stream of the parasites. They also stated that this is a relatively small fraction of the amount of penicillin which can be tolerated intravenously by mice, in contrast to the minimal subcutaneous dose of neoarsphanemine necessary to clear the blood within 24 hours, which amounts to about one-quarter to one-half of the maximum tolerated dose. In 1945, Altermeyer, Snyder, and Howe⁹ reported three cases of rat-bite fever which were clinically typical of the disease, and in all of which the *Streptobacillus Moniliformis* was isolated from the blood, all of which showed a very prompt response to penicillin therapy, and apparently were cured after a total of 132,000 units were administered. McDermott and associates report a case of Endocarditis due to *Streptobacillus Moniliformis* which expired although intensively treated with penicillin for three weeks.

In addition to the characteristics of the disease mentioned above, there are some differences in those cases due to the spirilla in contrast to those due to the streptobacillus. In the former, the incubation period is 1-3 weeks, while in the streptobacillary form it is 1-3 days. The spirilla type is usually associated with exacerbations of the local reaction, lasting 1-3 weeks. The wound due to the streptobacillary type heals rapidly; in the type due to the spirilla the rash is largely macular or papular, never petechial, while the streptobacillary form is a fine macular type. Lymphangitis and lymphadenopathy are usually present when the disease is due to the spirilla, and may be present when due to the streptobacillus. Blood cultures are negative with the spirilla form, but are positive when due to the *Streptobacillus Moniliformis*. The Wasserman test is negative with both; the Kahn reaction tends to be positive at the end of the 4th week with the spirilla form; with the streptobacillary form it is negative. There is a polynuclear leukocytosis. The spirilla form frequently shows a

prompt response to arsenotherapy, while the streptobacillary form shows little or no response. For an excellent and more detailed review of this subject, the reader is referred to the article by Brown and Nunemaker,¹⁰ published in 1942.

The following two cases of rat-bite fever were treated with penicillin because of the effect of this agent on the *Spirillum Minus* experimentally in mice.

Case No. 1: This child, L. P., 7 months, female, was admitted to the hospital on July 2, 1944, with a history of being bitten on the right cheek by a rat 8 days before admission. The child had been brought to the emergency ward and was treated with chlorazine soaks and given tetanus anti-toxin. About 4 days before admission she had fever and vomited every other feeding for two days. The pulse was 120, temperature 103°, and respirations 32. The child was well-nourished, pale, and irritable. On the right side of the face were two vertical breaks in the skin, parallel to each other, and about an inch apart, resembling a rat-bite. The neck was slightly stiff. The eardrums were normal, and there was no discharge. Pupils were round and regular; they reacted to light and accommodation. Mucous membranes of the mouth were normal; the throat was slightly red. There was no cervical lymphadenopathy. Chest was clear to auscultation and percussion. The heart rhythm was regular; there were no murmurs. The abdomen was soft, with no masses. The child cried when the abdomen was palpated. The genitalia were not remarkable. The reflexes were physiological. An X-ray of the chest at this time was negative. The spinal fluid was clear and colorless; the initial pressure was 290 mm., and dropped to 220 after removal of 10 cc. of fluid; it contained no cells, but 20 mg. of albumin, and gave no gold curve. Blood examination: Hemoglobin, 70%; red blood cells, 3.6 million; white blood cells, 5,300; differential: 35% neutrophils, 62% lymphocytes, and 2% monocytes. One examination of the blood for spirillae was negative. Vaginal smear and culture were negative for gonococci. On this admission there was no rash seen. For the first four days after admission the temperature showed a definite gradual drop, so that on the 4th day after admission it was 98°; on the following

day, however, it rose to 100°, and on the 6th day to 104°; it remained at this level for two days. The child was given sulfadiazine and the temperature gradually returned to normal over a period of 6 days. It was discharged on the 14th day after admission as improved.

The child was then re-admitted to the hospital on July 26, 10 days after discharge. At this time the temperature was 100.8°, pulse, 130; and respirations, 30. On this admission, the child had been having some respiratory difficulty. During the first hospital stay, the bite on the cheek had remained indurated for most of the time, and there was a macular rash reported on the 3rd day after admission. The physical condition of the child was apparently the same as when it was discharged, except that it continued to run a temperature and had some mild respiratory difficulty, which consisted chiefly of rather noisy respirations. Blood taken on the day of admission showed numerous active spirillae; these were also demonstrated on the second day after admission. On the third day, the child was given 150,000 units of penicillin intramuscularly. There was a rather prompt drop in the temperature to 98°. The child was given 100,000 units of penicillin for the next 6 days, and the temperature never went above 99° during this time. On the next day, 62,500 units were given, and the temperature following this remained generally between 98.2° and 98.8°, never going over 98.8°, and the child was discharged from the hospital on the 20th day after admission. There has been no recurrence up to the present time.

A note at this time regarding the spirillae: They were very motile. Several guinea pigs were injected with the blood of this child; two of the pigs developed ulcerative lesions at the site of inoculation in the groin. One of these ulcerative lesions showed quite firm, elevated edges, and from the edges spirillae could be found, which resembled in appearance those found originally in the child's blood.

Case No. 2: This one-year-old male child, S. H., was admitted to the hospital August 31, 1944, because of a fine rash and fever. Nine days before admission the child was bitten on the right fourth toe by a rat. The family, who were sitting in an adjacent room at the time, heard rats fighting in the room where the child was in bed. Eight days later, the child became

very fussy and cried when its left wrist was moved. It was feverish and seemed to cry when other parts of the body were touched. Three days before admission there was a macular, papular rash. The past history was essentially negative. The mother had congenital syphilis. The child was well-nourished and vigorous; it was covered with a maculo-papular rash. The head was symmetrical; there was no evidence of trauma. Eardrums were clear, and there was no discharge in the canals. Pupils were round and regular, and reacted to light and accommodation. There was no discharge from the nose. There were no spots in the mouth; the tongue was coated. The tonsils were enlarged and slightly inflamed. The neck was not stiff; there was no lymphadenopathy. The chest was clear to auscultation and percussion. The heart rhythm was regular; there were no murmurs. The abdomen was soft and symmetrical; the kidneys and liver were not enlarged; there was no tenderness or spasm. The genitalia were normal. The tip of the fourth right toe was missing, along with the nail. There was a dressing on the wound, which was relatively clear. The inguinal nodes were enlarged. The skin over the anterior surface of the body and the backs of the legs were covered with a generalized maculo-papular eruption, which was not confluent. Reflexes were physiological. Laboratory work: Blood Kahn and Hinton tests were negative. The hemoglobin was 63%, or 9.4 gms.; red blood cells, 3.6 million; white blood cells, 11,250; differential: 68% neutrophils, 27% lymphocytes, and 5% monocytes. The urine was normal. The temperature on admission was 102.6°; on the second day after admission it rose to 103°. Examination of the blood showed numerous spirillae, which were actively motile. Cultures and guinea pig inoculation, however, were negative in this case. On the second day after admission penicillin therapy was instituted. The child was given 60,000 units intramuscularly, and for the next 5 days was given 80,000 units, and on the 4th day 40,000 units.

Following the institution of penicillin therapy there was a rather sudden drop in the temperature to 99°; after the 3rd day of treatment it never rose above 99°, except on one occasion when it was reported as 99.2°. The child was discharged from the hospital on the 10th day after admission, definitely improved, and there has been no recurrence up to the present time.

CONCLUSION

To cases of rat-bite fever due to the *Spirillum Minus* are reported. Both showed rapid response to penicillin therapy. Neither case has shown any evidences of recurrence after penicillin therapy.

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Due to improved methods of case-finding and more widespread knowledge about the disease, tuberculosis did not increase in this country during the war, though it rose to alarming

proportions in Europe and Asia. Nevertheless, it is deplorable that tuberculosis took more than 205,000 American lives during the war years.—Harry S. Truman.

New Guinea Lichen Planus

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Shortly after the American troops were taken to the New Guinea area, a strange skin disease began showing up among the service men. It not only puzzled the American and foreign doctors abroad, but also the experienced dermatologists in this country who were seeing these cases in army hospitals and in their private practices. The disease was called Lichen Planus, as well as many other things, for no vocabulary is quite so limitless as the vocabulary of the dermatologist. It was my privilege to see some of the early cases of this untypical skin disease in the Lovell General Hospital where I have been visiting each month since the war began.

I felt at the time that it was not Lichen Planus. Some time later when some of these cases were shown at the New England Dermatological Meeting, it was interesting to find that others shared my views. Although it had many of the characteristics of Lichen Planus,—and it could not be disassociated from the nervous and emotional factors, it lacked other features, and it also had some of the diagnostic criteria which one sees in drug eruptions.

I spent some time in questioning these patients, trying to ferret out what could be back of the strange disease, and I formed the opinion that it must be due to Atabrine for that was one drug which all of these men who had been in foreign countries were taking to ward off malaria, as well as in the treatment of malaria if they succumbed to it. Because Quinine was scarce, Atabrine was rather universally used in the prevention and treatment of malaria in the Army, Navy and Marine Corps.

In years gone by, I had malaria when on the National Staff of the American Red Cross, when working and travelling in Georgia, Mississippi, and other malaria infested states. I have no criticism for the use of Atabrine as a preventive procedure for this terrible disease. However, we do hope that Atabrine can now be replaced by Quinine and some of the more recent drugs whose preliminary reports suggest that Atabrine can be a drug of the past.

Certainly New Guinea Lichen Planus, the

disease which soldiers include under the term "Jungle Rot," a disease which is considered grounds for discharge from the army, and which is a serious disease, should also be treated by preventive measures. The preventive measure in these cases, I believe, is simple. It is—Give no Atabrine.

In this paper we need not call attention to the other counts against the use of Atabrine, such as its effect upon the liver, the color of the skin, and the desire to look well. Every skin area of the body may be involved by this disease found in persons using large doses of Atabrine regularly and now called the New Guinea Lichen Planus. Lesions may also be found on the lips and the scalp.

I believe there is no longer any real doubt that New Guinea Lichen Planus is caused by the ingestion of Atabrine. Colonel Ashe, who is an army Histopathologist, and who, together with his co-workers has given the disease close study, has now definitely proven to the satisfaction of most dermatologists that Atabrine is at the bottom of all of these cases. Dr. Ashe has many photographs of microscopic slides which he showed to us at the last meeting of the New England Dermatological Meeting held in Boston in December.

New Guinea Lichen Planus resembles the Lichen Planus known almost from antiquity in that there are bilateral, symmetrical violaceous colored lesions with apparent favoritism for the hands, feet and legs. It also resembles the old-fashioned Lichen Planus in that it is intensely itchy. It differs from the better known Lichen Planus in that it is not so closely allied with a nervous or emotional upset, and it is closely related to a history of ingestion of Atabrine.

When we consider that Atabrine has been used for many years in America and no cases of this New Guinea type were ever described before, we wonder whether the medical profession has overlooked something, or whether it is a disease which like some other skin diseases is definitely influenced by life in the tropics.



LICHEN PLANUS, ATYPICAL

Certainly such common skin diseases as Acne and Dermatophytosis are different diseases when seen in tropical climates. The returning soldier has convinced us of this. A patient with these diseases yields more quickly to treatment after he has returned to the United States. While in the tropics some Acne and Dermatophytosis cases were so severe that they had to be returned to the United States. Certainly in America, Acne is not quite so disabling, though the disease does often constitute a severe psychological handicap.

In the treatment of New Guinea Lichen Planus, the general principals used in the treatment of drug eruptions must be followed out. Of course, dermatologists feel that the treatment should be given by competent dermatologists, for there are so many factors involved

which even those with extensive training have difficulty in ferreting out. The local treatment, of course, should be soothing, and it should vary with the conditions as they present themselves. The ordinary salves, ointments, tinctures and lotions including sulfonamides which are propagandized by drug houses, usually make the condition worse. Arsenicals and Bismuth have been found to be useless. X-ray treatment which today is used too readily by many dermatologists should be used with great caution, if at all. It must be remembered that some of these patients are sensitive to light and therefore Ultra-Violet is not an approved treatment. The entire patient must be studied from every angle, and this includes liver function and vitamin deficiency.

Continued on page 104

Allergy and Your Water Supply

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"What is one man's meat is another one's poison."

At regular intervals all State Laboratories receive samples of water from every public supply serving human beings in their own State and test them for pollution which would make them unsafe for human consumption.

These laboratories also test thousands of samples from wells and springs, supplying water to those who do not have access to a public supply.

The reports from these wells and springs are proudly exhibited and accepted to mean that the water is safe for everyone.

And so they are in so far as safety from diseases like typhoid fever is concerned but it is important to know that these reports do not include examinations for the mineral contents. Each analysis for minerals would require all the time of a chemist for ten days, making such service too time consuming and costly to carry on.

Resuming private practice in 1939, I soon had an opportunity for a long discussion with a biological worker on the rapidly developing vitamin problem, malnutrition and arthritis and the general practice of medicine in the country.

On the latter problem this doctor related his experience with arthritis in his own family; one member rapidly approaching a wheelchair existence in spite of advice from high medical authorities. Relating his experience to an engineer working on public water supplies, the engineer suggested he substitute distilled water for the patient's usual public water, even for making tea or coffee; quick improvement and recovery was the result.

Studying the food intake of my patients was not so bad, although it seemed to be more or less upset by wartime developments and at

times to be very puzzling. Taking up the fluid intake, met a solid wall of tradition, faith in grandpa's well or spring and the family and neighborhood trust in its mineral content; last, but not least, the State laboratory report in its being safe for human consumption.

Finally opportunity came and a trial of distilled water was agreed to in a case of long standing "indigestion" and a long time inability to eat a long list of foods. On the fourth day of using the new beverage, the menu was increased to a happy plate of boiled cabbage with a liberal sauce of vinegar, soon increased to anything available on a farm in the country. At the end of three weeks, a test was made by a return to water from the family well. At the end of forty-eight hours, a request came to return to distilled water with entire freedom from indigestion.

With variations, this experience has been repeatedly found but the greater results have been in cases of arthritis, not only in patients in my own locality but in out-of-State patients sojourning near us.

These cases seem to be purely allergic, not only to well and spring waters but also to our local water supply which is so good that it does not need chlorination.

To me, this subject is one of great interest.

The number of cases coming to my notice is small and it is with great regret that I realize that professional duties require so much of my time and, perhaps the wear and tear of sixty years of practice is such that I cannot hope to carry it along and therefore present it for what it is worth to those who may become sufficiently interested to take it up.

I assure you that it is worth all the time that may be given to it.

Abstracts

*From an Address on "Expansion of Voluntary Group Health Care Programs"
by Joseph H. Howard, M. D., President of the Connecticut State Medical
Society, at the First Annual Conference of Presidents and Other
Officers of State Medical Associations, Chicago, December 2, 1945*

Clearly the time for argument has almost run out. The time for action is here, and those who know what the evils of compulsory insurance would be must be prepared to meet constructively the benefits which are sought, through a comprehensive medical care program on a national basis.

There is an axiom of politics which the late Al Smith used to quote even though he may not have been the originator of it, and it said: "You can't beat somebody with nobody."

It is not my function at this time to marshal the arguments against Government control of the care of private health. Those arguments are impressive, but we must realize that a need exists for better provision for building the national health, and it is up to the medical profession to take the leadership in doing it or to surrender the responsibility to those in whose hands we would not like to see it placed.

"States' rights" has been an issue in the political life of our country ever since it was founded. Great leaders have joined the issue on this question, but our own Governor Baldwin of Connecticut and other foresighted leaders of political and economic thought have said that the only way that states' rights can be maintained as against the ever-increasing power of the Federal Government and its incursion into the lives of all of the people, is by meeting the needs of our people promptly and better than can be done by the national government.

We have seen many of the things that federal control can do to our daily lives, in the effect of the regulations under which we worked during the war just closed. We can observe the efforts of the ardent advocates of a more powerful Federal Government in many phases of our daily lives—the efforts to federalize education, the efforts to federalize all hiring and firing, the "ceilings" on prices, wages, and, in fact, almost everything that affects our daily lives.

President Truman, in his historic report on his conference with the heads of the other great powers at Potsdam, stated, "The war has shown us that we have tremendous resources to make all the materials of war. It has shown us that we have skillful workers, managers, and able generals, and a brave people capable of bearing arms. The new thing, the thing we have not known, the thing we have learned now and are never forgetting is this—that a society of self-governing men is more powerful, more enduring, more creative, than any other kind of society, however disciplined, however centralized. We know now the basic proposition of the work and dignity of man is not a sentimental aspiration or a vain hope or a piece of rhetoric. It is the strongest and most creative force now present in this world."

This does not sound like the same Mr. Truman who gave us the socialized medical program of last week.

On the very day that President Truman sent his message concerning a national health program to Congress, Senator Wagner, in introducing the new bill, accompanied his remarks by a statement which he inserted in the Congressional Record, purporting to give the "answers" to questions which had been raised or would be raised about the prepaid medical care provisions of his proposed "National Health Act of 1945," and to the question about "socialized medicine," Senator Wagner said, "The bill does not provide for 'socialized medicine' if by the term is meant medical care furnished by government doctors, free of charge."

You will see that this is a very narrow definition, and you will see further by an examination of the bill that is socialized medicine.

Yet the President has taken the words of Senator Wagner and said, "This is not socialized medicine. We do not want socialized medicine."

Well, it is federalized medicine, and this na-

tion has had some rather unpleasant experience with federalized medicine during the war, with some of the medical programs carried out under the Children's Bureau which were claimed to be merely emergency measures that would be required only during the war, but they are still being carried on after the war under the so-called Pepper Bill. If such a program is given to us as non-socialized medicine, you can be sure that it is inevitably a step towards socialized medicine, if the doctors agree to the present program.

Under the cloak of the favorite expression, "free choice of physicians," the bill covers some dangerous provisions and developments. By the use of this expression, the people, it would appear, will think that when this bill is passed, they can call their own doctor any time to be taken care of; but they do not tell us in this bill that the "free choice of physicians" includes only those physicians who are participating in the program. Therefore, if a family has a particular family doctor, and he does not participate in the plan, that family still will pay its taxes under this bill, but they will have to call the family doctor and pay him if they want him.

Another significant thing about the bill and about the discussion of it by its proponents is that the real cost of the measure is not made clear. Nowhere in the bill is the term "taxes" or "taxation" used. The proponents tell us that this is a "contribution" by the worker to this particular program. Therefore, by using the term "contribution" and not "taxation" it will include all those non-taxable people who previously had a free choice as to payment for medical care. . . .

The way to combat this federalization of medicine is by the development of voluntary plans in the various states. During the legislative session of 1945 more than thirty bills proposing cash sickness benefit plans, or compulsory health insurance systems were introduced in twelve state legislatures. Other bills called for studies of health insurance.

Under the compulsory type of insurance, of course, everybody would be required to pay taxes regardless of whether or not he sought medical care. Peculiarly enough, the greatest demand for compulsory health insurance comes from those states which were best supplied by

hospitals and physicians. For instance, in New York state there were twenty-seven health insurance bills introduced in the assembly between 1935 and 1945. Yet New York has far better medical and hospital facilities than the average state. On the other hand, the Southern states such as Mississippi, Alabama, and others, where the need for medical care is most acute, have practically no organized demand for compulsory health insurance. One may wonder what, then, is the reason for this movement in New York and other states for a compulsory health insurance bill.

The most powerful single force which is promoting the demand for compulsory health insurance is organized labor. The time most conducive for this demand is a period of depression. The place of such demand is the large industrial center where employment may have declined and where earnings may be low.

The need for improved medical care, particularly in some areas of this country, may be conceded and need not be argued. The form that this program should take is what is in question, also the administration of it, the benefits, and other details. Comprehensive statistics on the extent and prevalence of disease in the various states have not been obtained. Therefore, a complete study should be made first.

In considering any national health program, we must think of three major points: First, the need for supplying medical care and hospital service where none now exists; second, the need for better sanitation and hygiene; third, the need for economic development and improvement of the working conditions of the people, which will help to overcome some of the deficiencies which lead to disease.

All these points above are approved by the American Medical Association; the first was included in the Hill-Burton Bill, and the medical profession is back of it. Concerning the second point, this is a public health measure which should be developed by local communities with the aid of states and of the United States Public Health Service. The third point involves an expanding of our national economy, which can be accomplished only by less federal control and the encouragement of free enterprise.

In accepting the responsibility for meeting the needs of our country for improved health

and better financing of medical care, medical leaders must have certain well-defined and unified objectives, and the following are proposed for your consideration:

Establish state-wide, voluntary, non-profit health care programs in every state, based on the free choice of purveyor of health care. Such programs will vary in each state depending upon the type of policy written. For example, an indemnity plan for those classified as above the income level by each state or regional unit, and a service plan for the indigent and low-income families by contractual arrangement for payment of charges by the county, state, or federal government; a service plan for all other governmental categories eligible for health care; a service plan for all physicians' services to veterans of the armed forces for all illnesses and disabilities. Further federal or state programs for expansion of medical service may be developed within the structure of the program described here.

Financial responsibility for the care of the indigent traditionally has been a government function, and this must remain with government. Government and the medical profession must undertake a program for the more effective coöperation arrangement in the field of health, so that the indigent may have the same free choice of Doctors of Medicine and hospitals as the self-supporting.

This complex problem is made simple by the professionally administered group health care program. Incidentally, use of such a program calls for the adoption of a uniform fee schedule which puts an end to the unfair practice of forcing physicians to accept a fifty per cent discount for the care of government wards.

The new philosophy is — "in the light of modern conditions, changes, and trends, and the creation of new groups and categories — since in the past the medical profession has sold its commodity of service to government agencies at less than cost—that the minimal fee in the future shall be commensurate with the work done."

The time is here to withdraw the philosophy of a special discount rate to government for care of wards of government.

There is no doubt about it, the American people want security against unpredictable financial loss due to ill health and injuries. At this point, many do not seem to know that there

are alternatives to Government action so far as provision for medical care with a convenient method of payment are concerned. That is because a part of the medical profession has not assumed its full responsibility in developing and advancing the voluntary program.

The development of voluntary medical care programs and the experience under these various programs can be consolidated to offer the right answer to the compulsory medical care program as advocated by President Truman.

Voluntary medical care programs are sponsored by state and county medical societies, and are increasing every day. There are more than forty bureaus for executing such programs in twenty states, and two additional states are organizing plans at the present time. Of these programs, eleven are statewide, and twenty-nine are local. Thirty-six are in operation with enrolled subscribers, while four are in the organizing stage, but as yet have no enrollment.

A conservative aggregate of the enrollment of these medical care programs is 2,476,321. However, there are only about 8,000,000 persons out of a total population of 136,000,000 Americans who are covered under the plans, or about six per cent of the total population. One of our major objectives must be to increase this movement rapidly and largely if we are to combat the federal program.

A study by the Research Council for Economic Security of Chicago, prepared upon data from the Health and Accident Underwriters' Conference, shows that more than 40,000,000 Americans are estimated to enjoy health and accident and hospital insurance protection care under voluntary programs, and the same study also shows that the rate of growth in number of persons protected by health and accident and hospital insurance policies has been much more rapid than the rate of growth in premium income.

The reason is that health and accident and hospitalization protection has been made more generally available to the working people through the rapid development of group insurance. In 1920, there were about 4,000,000 people covered by voluntary health and accident and hospital insurance; in 1944, there were more than 40,000,000.

The Research Council very properly says, "This makes it evident that the percentage of population protected is rapidly approaching a

figure which will refute completely the argument of advocates of compulsory governmental programs, that the people who really need protection are not being reached under the voluntary programs now in operation."

The objectives, the problems, and the possibilities of professionally supported prepayment programs are everywhere broadly the same. They are a product of American medicine as a whole, and are not the exclusive development or property of any one segment or district or state. They seek to solve a problem, national in scope. Therefore, the principles which guide this movement for voluntary prepaid medical care are universal, even though there may be variations in details.

Distasteful though it may be, the time has come when the medical profession must concern itself with economic problems, because if we abandon the control of the economy of medicine to some authority outside the profession, and particularly to the Federal Government, scientific freedom cannot survive.

Our political leaders are not unmindful of the general state of popular sentiment and opinion in favor of some type of health insurance. That is why the administration at Washington has moved so swiftly for the adoption of the latest version of the Wagner-Murray-Dingell Bill. If the medical profession does not go "all out" in providing the medical and hospital care that is needed, it is obvious that public demand will encourage the political leaders to have the Government provide it.

In an effort to dramatize poor conditions of health among the American people, who incidentally are the healthiest nation in the world, and have been made so by our free independent type of medical care, as opposed to "state medicine" in Europe, President Truman asserts that 5,000,000 men were rejected from the draft because of some disability, and infers that under a federalized medical program this number would be cut down materially.

Of course, in using this fact as an argument for federalized or socialized medicine, the proponents do not break down those figures to show that a large percentage of those rejected were totally disqualified because of blindness, or deafness, or the loss of a limb, nor do they point out that more than 700,000 had mental or nervous diseases, or that a half million were mentally deficient; nor do they disclose that in

this figure are included hundreds of thousands of men who were rejected by selective service for certain conditions which socialized medicine could not have changed. They do not tell you either, that although in the United States, thirty-eight per cent of those called for induction were rejected, in England, where the standards of induction were not so high as those in the United States, the rate of rejection was fifty per cent, and England's socialized medicine health insurance program has been in operation for a whole generation. Supporting the administration and Senator Wagner and the other proponents of the "National Health Act of 1945" are groups from organized labor, "reform" and philanthropic organizations, the Social Security Board, and those who foster a philosophy of collectivism.

As the issue is joined for the battle in Congress over this proposal for federalized medicine, those who are known to be opposed to it include insurance companies, industry, commercial groups, the medical profession, and other citizens who believe in continued operation and strengthening of free and individual enterprise.

The battle for winning the support of the rest of the electorate of this country is now on, and it will be very largely action and facts which will tell the story best. I have pointed out that the people as a whole are in favor of some form of health insurance, but when the cost of the federal program is realized, they will be very much opposed to this burden, which is likely, under the provisions of the pending bill to run to about ten per cent of the entire national payroll.

Studies which have been made of the several types of prepayment plans sponsored by the physicians show that the cost of coverage may be estimated at about one-fourth of the cost of a federal program.

Senator Wagner has inserted in the Congressional Record messages which purport to be an endorsement of the principles of the "National Health Act of 1945," by the American Federation of Labor and by the C. I. O.; but the "new charter for labor and management" which was announced early this year by President William Green of the A. F. of L., President Philip Murray of the C. I. O., and President Eric Johnston of the United States

Continued on page 115

The President's Page

The time for our Annual Meeting rapidly approaches. The War prevented this usual medical get-together and here at hand will be a regular old-time reunion and scientific session, replete with entertainment. Don't miss it! Make your plans to be among those present on June 23-24-25, at Poland Spring and be ready to take part in the disposition of the many problems which will come before you. Take part too, in the discussion of the many papers prepared by our medical friends and listen to the timely discourses to be presented by the several celebrities who will be our guests. The May issue of *THE JOURNAL* will list the agenda for the meetings and you will have much to consider with decisions which **MUST** be made. I ask your presence at the House of Delegates sessions as well as at the time of general meeting. This is **YOUR** Association and this is indeed a year when as a matter of self preservation, you cannot fail to take part in each deliberation and business discussion. I am happy and most gratified at the whole-hearted interest and coöperation evinced by the Council and the several committees, to the end that you will have placed before you, a sensible plan of action, which if adopted, will do much for Maine Medicine.

The Veterans' Administration, through the **BLUE CROSS**, requested our Association to signify intention to take part in the care of the returning veterans. These soldiers, in large numbers, need medical and surgical aid, through office treatment and hospitalization. Fee tables were presented to the Council. These were unanimously accepted and by an "emergency vote," we took on this important, needful and patriotic work. You will be contacted for enrollment by the proper authorities, in the near future.

The Committee for Study of the Plan for Prepaid Medical Care has done much preliminary work and has reported to the Council. This plan will be discussed with you at the proper time and please give it thoughtful and careful attention. As I have stated previously, I again reiterate that I hope that no "plan" will be adopted which means collaboration and joining up with the Osteopaths. Let's "run our own show" once and for all! "Touch not Pitch that Ye be not defiled!" That time worn adage still holds good.

The re-birth of a medical school in Maine is more of a certainty than ever. This whole matter will be presented to you and you will be surprised at the details. We must not allow anything to hinder this worth while project! It is sensible, possible and practical. Don't scoff! We won't get anywhere unless we work together and we must not allow selfishness, narrowness or personal feelings to beget sabotage!

The need of a whole time Executive Secretary is most apparent. It is silly, puerile and a waste of money to indulge in the sporadic hiring of legal talent to represent us at the time of Legislature's convening. We need some smart, capable, intelligent layman, doctor or lawyer, who is a public speaker, a "mixer," and has a flair for politics, to work 365 days a year in our behalf! Gone are the days when "hit or miss" tactics will suffice. We have had ample proof of this fact. We **MUST** increase our dues and we cannot longer be niggardly. We all spend freely for social club dues, insurance and entertainment. Again I say that this is **YOUR** Association, — it's your protection, — so why not finance it properly? See what the little State of Rhode Island does, and why shouldn't we wake up and do the same? Think it over.

ADAM P. LEIGHTON, M. D.,
President, Maine Medical Association.

Editorial

Unusual Skin Disease Caused Major Problem in Pacific Area

Lichenoid dermatosis, an unusual skin disease, has been a major problem among the armed forces. Capt. Lawrence C. Goldberg, M. C., Army of the United States, says that never before in the history of skin diseases have there been so many people affected with lichenoid lesions, characterized by wide red patches, as there have been in the South Pacific theater of war and other allied areas.

Writing in the March 23 issue of *The Journal of the American Medical Association*, Capt. Goldberg says that physicians are still trying to determine the cause of this inflammatory disease which affects all types of people: combat soldiers, general staff officers, doctors, nurses, Wacs and soldiers doing routine tasks in no way associated with active combat duty.

Although these lesions are familiar to medicine, the author states that "in many respects the disease is entirely different from any type heretofore described." The difference lies in the fact that the skin eruptions involved areas not usually affected by the commoner type of skin inflammation, such as the scalp, eyelids, face, palms, soles and nails.

Searching for the underlying cause of this condition, Capt. Goldberg says that "lichenoid lesions have been known to occur in drug eruptions

caused by arsenic, bismuth and bromides, so that the thought that atabrine [a drug used in treatment of malaria] might cause this unusual dermatosis is not improbable."

However, the author points out that in some cases patients, who developed malaria while under observation and were treated with large amounts of atabrine, showed no aggravation of their skin condition. He lists malnutrition and emotional disturbances as other possible factors.

Three distinct phases were noticed during the course of the disease. The first, characterized by inflammation of the skin, was treated with mild salves and lotions because of the sensitivity of the skin. The second phase, which was marked by the scaling of the skin, necessitated the continuous application of wet dressings, applied over the entire body if necessary, which were covered with towels, and a high caloric diet with vitamins. Sulfonamide drugs were never used. The third phase, in which the body was covered by wide red patches, was treated with mapharsen, an arsenic compound.

The mapharsen treatment was tried on 60 patients at the Oliver General Hospital, Augusta, Ga., and in some "the results have been excellent," according to the author.

New Guinea Lichen Planus—Continued from page 97

The prognosis in New Guinea Lichen Planus like that of many other diseases has many uncertainties. If the case is discovered early, and if the proper therapeutic procedures are instituted early, the results should be entirely satisfactory to all concerned.

The chronic case has lesions, however, which disappear slowly and as far as we know now some do not disappear at all. Colonel Ashe, the noted army Histopathologist from Washington, who up to this moment has perhaps

examined more slides than anyone else, feels that the chronicity of lesions and other microscopic characteristics may possibly cause cancer to develop later on. Only time will tell whether this gloomy thought is correct. However, because of his forebodings and because of the patient's physical discomfort and cosmetic injury, it is important that New Guinea Lichen Planus be treated as early and as effectively as possible.

Voluntary Prepayment Medical Care Plans

The following resolution is printed in support of Dr. Leighton's message of last month. The Resolution was approved by the House of Delegates at the Chicago meeting, December, 1945. The Council on Medical Service and Public Relations has proceeded with diligence

to establish standards for Prepayment Plans as outlined in the Resolution. And the members of our House of Delegates may feel sure that the Council is prepared to give assistance and advice to them in the formulation of a Prepayment Plan for Maine.

Report of the Special Committee of the Conference on Voluntary Prepayment Medical Care Plans

Whereas, voluntary prepaid medical care programs, sponsored and operated by the medical profession in many parts of the country, are providing the means whereby millions of persons are able to obtain good medical care and hospital service on a budgeted basis; and

Whereas, this medical care has been rendered in a manner highly satisfactory to both patient and physician, and

Whereas, there are forty-seven voluntary plans in operation in twenty-four states, with almost every other state medical society in the process of developing plans, and

Whereas, in spite of this development some areas of the country have no such programs in operation at the present time; and

Whereas, these voluntary prepayment plans are based on the intrinsic American principles of personal initiative and personal responsibility, and

Whereas, the voluntary type of prepayment plan is to be preferred—in the interest of the people's health—to compulsory care under political control, and

Whereas, a large proportion of the people desire prepayment medical care programs, therefore be it

Resolved, that the House of Delegates take *immediate* steps to encourage the development of a national voluntary prepayment medical care plan:

For the purpose of covering areas not now served by plans;

For the purpose of assisting in the enrollment in local plans of national enrollment groups, and

To serve until such time as all states have their own plans.

Resolved, that the American Medical Association's Council on Medical Service and Public Relations be instructed by the House of Delegates to take *immediate* steps to:

1. Coördinate the activities of all prepayment medical care plans now in operation.
2. Foster the development of such plans in those areas where there are none.
3. Educate physicians and the public as to the functions of voluntary prepayment plans and the need for supporting them.

And be it further

Resolved, that the officers and committees of every State Medical Society be urged by the House of Delegates to secure prompt action by their State Society in inaugurating new, or increasing the benefits of existing prepayment medical care programs in every state.

Respectfully submitted,

A. S. BRUNK,
W. C. CHENEY,
MARTIN I. OLSEN,
JULIAN PRICE,
CARL VOHS,
J. R. MILLER, *Chairman*.

Constructive Program of the American Medical Association for the Improvement of Medical Care

The Board of Trustees of the American Medical Association and the Council on Medical Service of the American Medical Association at a meeting just completed in Chicago have taken a long step toward protection of the American people against the costs of sickness through participation in a voluntary prepayment sickness plan now developed under the authority of the American Medical Association.

The fundamental step in the development of this plan was the establishment of standards of acceptance for medical care plans which have the approval of the Council on Medical Service of the American Medical Association. Any plan which meets the standards of the Council will be entitled to display the seal of acceptance of the American Medical Association on its policies and on all of its announcements and promotional material. In order to qualify for acceptance, the prepayment plan must have the approval of the state or county medical society in the area in which it operates. The medical profession in the area must assume responsibility for the medical services included in the benefits. Plans must provide free choice of a qualified doctor of medicine and maintain the personal, confidential relationship between patient and physician. The plans must be organized and operated to provide the greatest possible benefits in medical care for the subscriber.

Medical care plans may be in terms of either cash indemnity or service units, with the understanding that benefits paid in cash are to be used to assist in paying the costs incurred for medical service. The standards also include provisions relative to the actuarial data that are required, systems of accounting, supervision by appropriate state authorities and periodic checking and reporting of the progress of the plan to the Council.

Coincidentally with the announcement of these standards of acceptance, there was organized, as a voluntary federation, an organization known as Associated Medical Care Plans, Inc. This independent association will include as members all plans that meet the minimum standard of the Council on Medical

Service of the American Medical Association. The Associated Medical Care Plans will undertake to establish coordination and reciprocity among all of these plans so as to permit transference of subscribers from one plan to another and use of the benefits in any state in which a subscriber happens to be located. Under this method great industrial organizations with plants in various portions of the United States will be able to secure coverage for all of their employees. Moreover, it will be possible for the Veterans' Administration, welfare and industrial groups as well as government agencies, to provide coverage for the people in any given area through a system of national enrollment. In addition, the Associated Medical Care Plans, Inc., will undertake research and the compilation of statistics on medical care, provide consultation and information services based on the records of existing plans and engage in a great campaign of public education as to the medical service plan movement under the auspices of state and county medical societies.

The Board of Trustees of the American Medical Association also announced the establishment under its Council on Medical Service of a Division of Prepayment Medical Care Plans with a director and a staff who will administer the activities of the Council on Medical Service related to the promotion and development of medical care plans in all of the states.

In announcing its proposals for a nationwide provision of sickness insurance on a mutual non-profit basis, the Association through its president and the Board of Trustees authorizes the publication of its complete health program with the ten points, which include the development of services in the field of preventive medicine, maternal and child health, voluntary prepayment plans for protection against the costs of sickness, compensation for loss of wages due to illness, the care of the veteran and the development of a high standard of housing, nutrition, clothing and recreation. The American Medical Association last June through its Board of Trustees and Council on Medical Service announced a 14-point program to im-

prove the health and medical care situation in the United States. In October, 1945, the interpretation of these 14 points and methods of implementation were adopted by the Council on Medical Service. In December, 1945, the House of Delegates approved the whole program, suggested its re-arrangement and directed the Board of Trustees to keep the program constantly up to date so that it will stay at least even with and, if possible, a step ahead of the needs of the public.

With this in mind the Board of Trustees has adopted a re-statement of the 14-point program, which clarifies still further the position of the American Medical Association on some of these points and brings into the program more definitely such matters as maternal and child welfare, medical research, the medical care of the veteran and the part to be played by the voluntary health agencies.

This re-statement follows:

NATIONAL HEALTH PROGRAM OF THE AMERICAN MEDICAL ASSOCIATION

1. The American Medical Association urges a minimum standard of nutrition, housing, clothing and recreation as fundamental to good health and as an objective to be achieved in any suitable health program. The responsibility for attainment of this standard should be placed as far as possible on the individual, but the application of community effort, compatible with the maintenance of free enterprise, should be encouraged with governmental aid where needed.

2. The provision of preventive medical services through professionally competent health departments with sufficient staff and equipment to meet community needs is recognized as essential in a health program. The principle of federal aid through provision of funds or personnel is recognized with the understanding that local areas shall control their own agencies as has been established in the field of education. Health departments should not assume the care of the sick as a function since administration of medical care under such auspices tends to a deterioration in the quality of the service rendered. Medical care to those unable to provide for themselves is best administered by local and private agencies with the aid of public funds when needed. This program for national health should include the

administration of medical care including hospitalization to all those needing it but unable to pay, such medical care to be provided preferably by a physician of the patient's choice with funds provided by local agencies with the assistance of federal funds when necessary.

3. The procedures established by modern medicine for advice to the prospective mother and for adequate care in childbirth should be made available to all at a price that they can afford to pay. When local funds are lacking for the care of those unable to pay, federal aid should be supplied with the funds administered through local or state agencies.

4. The child should have throughout infancy proper attention including scientific nutrition, immunization against preventable disease and other services included in infant welfare. Such services are best supplied by personal contact between the mother and the individual physician but may be provided through child care and infant welfare stations administered under local auspices with support by tax funds whenever the need can be shown.

5. The provision of health and diagnostic centers and hospitals necessary to community needs is an essential of good medical care. Such facilities are preferably supplied by local agencies, including the community, church and trade agencies which have been responsible for the fine development of facilities for medical care in most American communities up to this time. Where such facilities are unavailable and cannot be supplied through local or state agencies, the federal government may aid, preferably under a plan which requires that the need be shown and that the community prove its ability to maintain such institutions once they are established. (Hill-Burton bill.)

6. A program for medical care within the American system of individual initiative and freedom of enterprise includes the establishment of voluntary non-profit prepayment plans for the costs of hospitalization (such as the Blue Cross plans) and voluntary non-profit prepayment plans for medical care (such as those developed by many state and county medical societies). The principles of such insurance contracts should be acceptable to the Council on Medical Service of the American Medical Association and to the authoritative

bodies of state medical associations. The evolution of voluntary prepayment insurance against the costs of sickness admits also the utilization of private sickness insurance plans which comply with state regulatory statutes and meet the standards of the Council on Medical Service of the American Medical Association.

7. A program for national health should include the administration of medical care, including hospitalization, to all veterans, such medical care to be provided preferably by a physician of the veteran's choice with payment by the Veterans' Administration through a plan mutually agreed on between the state medical association and the Veterans' Administration.

8. Research for the advancement of medical science is fundamental in any national health program. The inclusion of medical research in a National Science Foundation, such as proposed in pending federal legislation, is endorsed.

9. The services rendered by volunteer philanthropic health agencies such as the American Cancer Society, the National Tuberculosis Association, the National Foundation for Infantile Paralysis, Inc., and by philanthropic agencies such as the Commonwealth Fund and the Rockefeller Foundation, and similar bodies have been of vast benefit to the American people and are a natural outgrowth of the system of free enterprise and democracy that prevail in the United States. Their participation in a national health program should be encouraged and the growth of such agencies when properly administered should be commended.

10. Fundamental to the promotion of the public health and alleviation of illness are widespread education in the field of health and the widest possible dissemination of information regarding the prevention of disease and its treatment by authoritative agencies. Health education should be considered a necessary function of all departments of public health, medical associations and school authorities.

HOSPITAL STAFF MEETINGS

Open to the Profession

CITY	HOSPITAL	DATE
Augusta	Augusta General Hospital	1st Wednesday
Bangor	Eastern Maine General	2nd Tuesday
Bath	Bath Memorial Hospital	1st Tuesday
Belfast	Waldo County	2nd Friday
Boothbay Harbor	St. Andrew's Hospital	4th Tuesday
Caribou	Cary Memorial	1st Wednesday
Damariscotta	Miles Memorial	1st Thursday
Lewiston	Central Maine General	1st Monday
	St. Mary's General	2nd Monday
Portland	Maine Eye and Ear Infirmary	1st Wednesday
	Maine General	2nd Friday
	Mercy	3rd Thursday
Presque Isle	Presque Isle General	1st and 3rd Tuesdays
Rockland	Knox County General	1st Monday
Rumford	Rumford Community	4th Wednesday
Sanford	Goodall Memorial	2nd Monday
Waterville	Sisters	2nd Tuesday
	Thayer	Every Thursday

The above list was compiled from a questionnaire sent out by the Maine Hospital Association. Additions or corrections will be made on notification to the Secretary, Maine Hospital Association, Thayer Hospital, Waterville.

Necrology



Erastus Eugene Holt, Jr., M. D.,

1886-1946

Dr. Erastus Eugene Holt, Jr., died on February 2, 1946, after an illness of about seven years' duration. Because of the brave manner with which he bore his illness in spite of its inevitable outcome, our shock and grief at his passing are as great as if the end had come after a much shorter illness.

Dr. Holt was born on September 5, 1886. He was educated in the schools of Portland and graduated from Bowdoin Medical School in 1910. He served his internship at the Maine Eye and Ear Infirmary, which was founded by his distinguished father. Following his internship, he became associated with his father. Their large practice was at first confined to diseases of the eye and ear and later entirely to diseases of the eye. During this period, Dr. Holt, Jr., was also on the teaching staff of the Bowdoin Medical School, remaining until that school passed out of existence in 1921.

Dr. Holt was eminently successful in his practice and after the death of his father succeeded him as the Executive Surgeon and Superintendent of the Maine Eye and Ear Infirmary. In that position, he contributed greatly to the growth and development of the hospital and was active in the operation and affairs of the institution until the time of his death.

Dr. Holt was an active member of many clubs and organizations, both medical and otherwise. Among these was the Portland Medical Club, which was founded by his father and of which Dr. Holt himself was the president in the fiftieth year of its existence. He was a member of the Aegis Club, the Cumberland

County Medical Society, the Maine Medical Association, the American Medical Association, the American College of Surgeons, the New England Ophthalmological Society, and the Academy of Ophthalmology and Oto-Laryngology. He was the Consulting Surgeon to the Maine General Hospital, the Children's Hospital in Portland, the Webber Hospital in Biddeford, and the Goodall Memorial Hospital in Sanford.

Dr. Holt was known and respected by his colleagues for his skill in both the surgical and medical treatment of diseases of the eye. His rare dexterity and judgment as well as his determined application to his work resulted in the great success which he attained in his chosen field.

The City of Portland and the State of Maine have lost a distinguished citizen and loyal friend; his fellow physicians have lost a respected colleague whose accurate diagnosis, sound judgment, and surgical skill were highly valued by all; and his patients will miss his sound advice and skillful care.

It is with the most profound regret that the Cumberland County Medical Society reports the death of one of its older, best known, and most interested members. The sympathy of his colleagues goes out to his devoted wife and to his three splendid daughters.

FRANKLIN A. FERGUSON, M. D.,
Chairman.

LUTHER A. BROWN, M. D.,
WILLIAM HOLT, M. D.,
Committee on Resolutions.

COUNTY SOCIETIES**Androscoggin**

President, Romeo A. Beliveau, M. D., Lewiston
Secretary, Wedgwood P. Webber, M. D., Lewiston

Aroostook

President, Clyde I. Swett, M. D., Island Falls
Secretary, Thomas G. Harvey, M. D., Fort Fairfield

Cumberland

President, Elton R. Blaisdell, M. D., Portland
Secretary, Joseph E. Porter, M. D., Portland

Franklin

President, Harry Brinkman, M. D., Farmington
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Hancock

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Penobscot

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York

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Secretary, C. W. Kinghorn, M. D., Kittery

County Society Notes**100% Paid Membership for 1946**

Piscataquis County Medical Society
Hancock County Medical Society
Franklin County Medical Society
Somerset County Medical Society
Lincoln-Sagadahoc County Medical Society

Cumberland

A meeting of the Cumberland County Medical Society was held at the Maine General Hospital on March 27, 1946; Dr. Elton R. Blaisdell presiding. The minutes of the last meeting were read and accepted. A committee consisting of Drs. Franklin A. Ferguson, Chairman; William Holt, and Luther A. Brown, was appointed to draw up resolutions on the death of Dr. E. E. Holt, Jr. Two letters were read from Harold M. Arno, Executive Secretary, Portland Housing Authority, Sagamore Village, Portland, requesting the attendance of one or more physicians at clinics at the Village, including Well and Sick Baby Clinics and an Immunization Clinic. The payments for such services would be on a fee basis. Dr. Blaisdell appointed the following committee to confer with Mr. Arno as to how best this problem could be handled: Drs. George A. Tibbetts, Chairman; James M. Parker, and Donald H. Daniels. A telegram was read from Mr. J. W. Holloway, Director of the Bureau of Legal Medicine and Legislation of the American Medical Association, informing the society that the Senate Committee on Education and Labor had scheduled a hearing on the Wagner-Murray-Dingell Bill, S-1606, to commence March 18th. It was voted, after a motion by Dr. Drake, that this society go on record as opposing Bill S1606, and that copies be sent to Mr. Holloway, and also to the State Senators and Congressmen. A committee consisting of Drs. Joseph E. Porter, Chairman; Thomas A. Foster, Harry E. Davis, Oscar R. Johnson, and Eugene H. Drake, was appointed by the chair to confer with the Council of Social Agencies with regard to holding a seminar on health on the evening of April 10th at the City Hall Auditorium. The society proposed for a Fifty-Year Medal, Dr. Thomas Tetreau, of Portland, a member of the society who has been in practice for fifty years.

The principal speaker of the evening was Dr. Robert Gross, Assistant Professor of Surgery at the Harvard Medical School and Surgeon at the Children's Hospital in Boston. His subject was *Surgery of the Heart*. In his paper he outlined the anatomy of the heart, the technique of operating upon various defects, including the obliteration and excision of the ductus arteriosus when patent, and the technique and results of resection of a portion of the aorta for coarctation. Dr. Gross is a pioneer in this field, and his presentation was most modest. The paper was thoroughly enjoyed and discussed by many of those present.

Preceding the meeting, a clinic was presented by the members of the staff of the Maine General Hospital, and followed by dinner.

JOSEPH E. PORTER, M. D.,
Secretary.

Hancock

A regular meeting of the Hancock County Medical Society was held at the Hancock House, Ellsworth, on Wednesday evening, March 13th, at 6.30 P. M.

The First Year

THE SUCCESSFUL NUTRITIONAL history of S-M-A babies is due to the remarkable similarity of S-M-A to mother's milk. It is essentially the same as human milk in percentage of protein, fat, carbohydrate and ash, in chemical constants of the fat and in physical properties.

S-M-A* IS RECOMMENDED for normal, full term infants in the early weeks of life when a supplementary food is required for the breast-fed infant. It may be given to infants of any age whenever the mother's milk is unavailable, of poor quality or insufficient quantity.



S-M-A is derived from the milk of tuberculin-tested cows. Part of the butter fat of this milk is replaced with animal and vegetable fats, including biologically assayed cod liver oil. Milk sugar, vitamin A and D concentrate, carotene, thiamine hydrochloride, potassium chloride and iron are added. *REG. U. S. PAT. OFF.

Supplied: 1 lb. tins with measuring cup.

Wyeth
REG. U. S. PAT. OFF.

Our society members went on record as being opposed to the action of the Council of the Maine Medical Association, at their February 3rd meeting, in regard to the matter of pro-rating dues for members returning from military service. It was felt that members in the service up to June, 1946, should not be obliged to pay dues for the year.

Hyman Millstein, M. D., of Southwest Harbor, read a paper on *Chronic Osteomyelitis*. This was followed by a period of general discussion.

J. H. CROWE, M. D.,
Secretary.

Lincoln-Sagadahoc

At the annual meeting of the Lincoln-Sagadahoc County Medical Society, held January 27, 1946, the following officers were elected:

President, Francis A. Winchenbach, M. D., Bath.

Vice President, Philip O. Gregory, M. D., Boothbay Harbor.

Secretary-Treasurer, Virginia C. Hamilton, M. D., Bath.

Delegates to the Maine Medical Association: James W. Laughlin, M. D., Damariscotta; and Warren E. Kershner, M. D., Bath.

Censors: Edwin F. Pratt, M. D., Edwin M. Fuller, Jr., M. D., and Robert W. Belknap, M. D.

VIRGINIA C. HAMILTON, M. D.,
Secretary.

Penobscot

The regular meeting of the Penobscot County Medical Association was held at the Bangor House, Bangor, Tuesday, March 19, 1946.

Resolutions were adopted on the death of Clayton H. Bayard, M. D., of Orono, as follows:

"On January 14th, Clayton H. Bayard, M. D., of Orono, went on his last call; and his exit was another time marker in the closing era for truly great medical men of his age.

Never a loudly active member of any group, Dr.

Bayard prided himself on being a 'lone wolf.' His skill, his integrity, his intelligence, his strict adherence to the Hippocratic Oath, however, would be an ideal well sought by any of those following him and accepting the responsibilities of the profession.

The Penobscot County Medical Association pays its respects to its departed member."

The speaker of the evening was William Dameshek, M. D., Hematologist at the Pratt Diagnostic Hospital, Boston, Mass.

The subject was: "Advances in Hematology."

Attendance was the largest thus far this year: 66.

FORREST B. AMES, M. D., Secretary,
Penobscot County Medical Association.

Coming Meetings

Cumberland County Medical Society April 26, 1946

A meeting of the Cumberland County Medical Society will be held at the Falmouth Hotel, Portland, Maine, Friday, April 26th.

Dinner: 6.30 P. M.

Speaker: Dwight E. Harken, M. D., Boston, Massachusetts.

Subject: Thoracic Surgery.

A clinic at the Maine General Hospital at 5.00 P. M. will precede the evening meeting.

May 24, 1946

Kenneth Tillotson, M. D., Psychiatrist and Chief, McLean Hospital, Waverly, Massachusetts, will speak on *Shock Treatment and Frontal Lobotomy* at the May meeting of the Cumberland County Medical Society. Place and time of meeting will be announced in the May issue of the JOURNAL.

JOSEPH E. PORTER, M. D.,
Secretary.

News and Notices

State of Maine Board of Registration of Medicine

The next examinations will be held at Augusta, Maine, July 2 and 3, 1946. Apply to Adam P. Leighton, M. D., Secretary, 192 State Street, Portland 3, Maine.

Appointed Chairman National Committee on Medical Care, American Public Welfare Association

Leverett D. Bristol, M. D., Commissioner of Health and Welfare, Maine Department of Health and Welfare, Augusta, has been appointed chairman of the National Committee on Medical Care of the American Public Welfare Association. The committee, made up of leading welfare authorities in the United States, includes state administrators as well as representatives of private agencies. The committee will consider adequate medical care for persons in need, the development of wise administrative procedures to cover the medical aspects of

public assistance and a satisfactory program for the care of the chronically ill.

Named Augusta Health Officer

John G. Metzgar, M. D., has been named Health Officer of Augusta by Mayor Sanford L. Fogg.

Doctor Metzgar will also be a member of the Board of Health as well as city health officer.

He practiced in Augusta six years before entering the Army in 1941. He served two years in the United States before going overseas where he saw duty in New Guinea, Australia and the Philippines.

Resigns as Medical Director

D. Allan Craig, M. D., has resigned as medical director of the Eastern Maine General Hospital, Bangor, to become associated with Charles F. Neergaard, consultant in hospital planning, organization and management, New York.



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Opening for physician on staff of Student Health Service at University of Maine, Orono. Write Joseph M. Murray, Health Service Committee at University.

Islesboro, Waldo County

For information write to Mrs. R. S. Randlett, R. N., P. O. Box 245, Islesboro, Maine.

American College of Chest Physicians

The next oral and written examinations for Fellowship in the American College of Chest Physicians will be held at San Francisco on June 29, 1946. Applicants for Fellowship in the College who plan on taking the examination should communicate with the Executive Secretary, American College of Chest Physicians, 500 North Dearborn St., Chicago 10, Illinois.

The Twelfth Annual Meeting of the College is scheduled to be held at the Sir Francis Drake Hotel, San Francisco, June 29-30, July 1-2.

MURRAY KORNFIELD,
Executive Secretary.

Didactic and Clinical Refresher Course in Otolaryngology

A one-week didactic and clinical refresher course in Otolaryngology has been arranged for Specialists in the field, from May 13th to 18th, 1946, inclusive. Applications for registration should include school of

graduation, training and experience. Check for tuition (\$50.00) should accompany the application.

In addition, a special course in Broncho-Esophagology will be given from June 3rd to 15th, 1946, inclusive. It will consist of lectures, animal and cadaver demonstrations, diagnostic and surgical clinics.

The course will be under the direction of Drs. Paul H. Holinger and Albert H. Andrews, Jr.

Tuition for this Course is \$100.00. Check should accompany application. Class limited to twelve physicians.

For further information address:

Department of Otolaryngology,
University of Illinois College of Medicine,
1853 West Polk Street,
Chicago, Illinois.

The National Foundation for Infantile Paralysis, Inc.

The National Foundation for Infantile Paralysis, Inc., reports that Dr. H. M. Weaver, Senior Administrative Assistant and Assistant Professor of Anatomy, Wayne University College of Medicine, Detroit, has been named assistant to the medical director of the National Foundation for Infantile Paralysis.

Dr. Weaver's work will be with the National Foundation's research program and fellowship training program for physicians and research workers. Under grants provided by the Foundation, research programs are being carried on in medical organizations throughout the country in an effort to find means of prevention or cure of polio. The professional training program includes fellowships in orthopedic surgery, pediatrics, virology and other fields concerned with polio.

Members Released from Military Service

The following names of members released from Military Service have been reported to the office of the Maine Medical Association since publication of the list in the March issue of the JOURNAL.

Androscoggin County Medical Society:

Beliveau, Bertrand A.,	Lewiston
Bousquet, Jean,	Lewiston
Brooks, Glidden L.,	Lewiston
Tousignant, Camille,	Lewiston
Viles, Wallace E.,	Turner

Aroostook County Medical Society:

Gagnon, Bernard,	Houlton
------------------	---------

Hancock County Medical Society:

Coffin, Ernest L.,	Northeast Harbor
--------------------	------------------

Lincoln-Sagadahoc County Medical Society:

Smith, Jacob,	Bath
---------------	------

Somerset County Medical Society:

Bernard, Albert J.,	Skowhegan
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York County Medical Society:

Tower, Elmer M.,	Ogunquit
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Abstracts—Continued from page 102

Chamber of Commerce, said, "The rights of private property and free choice of action under a system of private, competitive capitalism must continue to be the foundation of our nation's peaceful and prosperous expanding economy. Free competition, and free men are the strength of our free society."

I would like to stress the need for a national voluntary prepayment health service plan, uniform in general principles, with reciprocity among states, so that practically the same benefits are offered in any or all parts of the country at the same subscription rates, to facilitate enrollment of national groups, as well as to permit a continuation of coverage to those whose work moves them from one section of the country to another.

Approximately 60 per cent of the business in America is on an interstate basis, and the necessity, therefore, of some master plan in the various states to cover people moving about from one state to another is most important.

I believe, therefore, that the medical profession must offer a national medical program

which guarantees that the subscriber receive the service he needs when he needs it, any place in the United States at no additional expense.

The opportunity is before us, in every state all over the country, to show what the voluntary plans can do. If the doctors do not act upon this opportunity, evidence that the government will enter the field is overwhelming. The hour is late. Government will not wait, because the people will not wait. People want a group prepayment program. The medical profession, their own doctors, must supply and operate a voluntary program. They will expect it. They will prefer it. As Doctors of Medicine, we should continue to control our own profession. We must act with the greatest speed, consistent with safety and orderly progress, to develop group medical care programs.

. . . I advise you gentlemen to strike while the iron is hot. Develop your voluntary group medical plans today. Tomorrow, the iron may be cold and molded to a pattern not of your making and not to your liking.

Laboratory Technicians Needed

The Maine General Hospital is urgently in need of Laboratory Technicians.

Apply to: Personnel Department,
Maine General Hospital, 23 Arsenal
Street, Portland 4, Maine.

Positions Open

Positions open for Service as District Health Officers, Maine State Bureau of Health. Salary \$4,000 to \$5,000 per year, plus travel.

Apply to: Roscoe L. Mitchell, M. D.,
Director of Health, Department of Health
and Welfare, Bureau of Health, State House,
Augusta, Maine.

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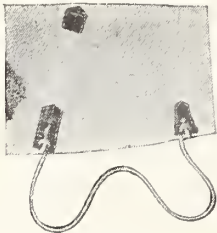
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The Journal of the Maine Medical Association

Volume Thirty-seven

Portland, Maine, May, 1946

No. 5

Penicillin Inhalation Therapy

With a Presentation of Treated Cases and a Description of the Apparatus, Technique of Administration, and Dosage of the Drug

By RUDOLF TOCH, M. D., and CHARLES W. STEELE, M. D., F. A. C. P.

Since the supply of penicillin has become relatively plentiful, various investigators^{1-5, 7} have explored its usefulness when administered by other methods than intramuscular or intravenous injection. One of the most recent developments has been the use of penicillin aerosol (mist) which is a suspension of penicillin solution in a gas, most commonly oxygen or air. The penicillin is inhaled like a gas and distributed uniformly in the lungs where it is absorbed by the lung tissue. This method achieves a very high local concentration, and prompt diffusion into the blood stream of this biotic, as proven by animal experiments and by the adequate blood levels found in the treated human patients.^{1, 2, 3, 6}

APPARATUS AND TECHNIQUE OF ADMINISTRATION OF PENICILLIN AEROSOL (MIST)

The production of penicillin aerosol requires a glass nebulizer of the type shown in Fig. I which produces fluid particles of less than one micron in size. A Vaponefrin Nebulizer with

the Barach rebreathing attachment for a two liter rubber bag with two glass attachments for nasal inhalation (Fig. II) was used in the hospital for vaporization of the penicillin solution.

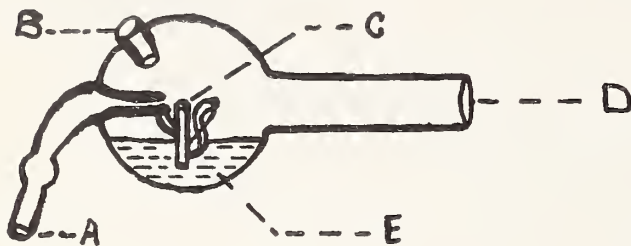
This apparatus was composed of the following parts:

1. A large oxygen tank.
2. A reducing valve to lower the oxygen pressure in the tank.
3. A Y-tube and various lengths of rubber tubing.
4. A nebulizing unit of the Vaponefrin type.
5. A rebreathing bag.
6. A nose piece designed to fit into the patient's nostrils.

These parts are interconnected in such a way that a stream of gas enters the nebulizing unit through a Y-tube, when oxygen is to be used from a large tank, or directly when air is to be provided by a hand bulb. One c.c. of a solution containing 20,000 units of penicillin is placed in the nebulizer and this solution is then vapor-

ized by a stream of oxygen and carried past the rebreathing bag and through the glass nose piece for inhalation by the patient.

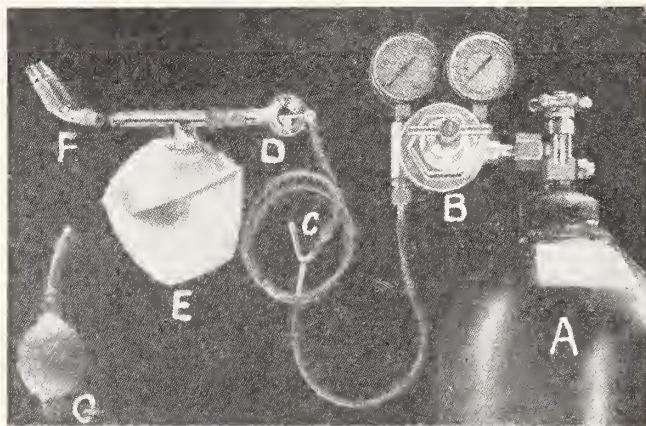
FIGURE I



A GLASS NEBULIZER

- A. Oxygen or air enters nebulizer here.
- B. Aperture through which penicillin solution is instilled into the nebulizer.
- C. Vaporizing unit.
- D. Penicillin aerosol (mist) leaves nebulizer through this opening.
- E. 1 c.c. of penicillin solution to be nebulized.

FIGURE II



A VAPONEFRIN NEBULIZER

WITH THE BARACH REBREATHING ATTACHMENT AND TWO GLASS ATTACHMENTS FOR NASAL INHALATIONS

- A. Oxygen tank.
- B. Reducing valve.
- C. Glass Y tube.
- D. Nebulizer.
- E. Barach Rebreathing Attachment for a two liter rubber bag.
- F. Two glass attachments for nasal inhalations.
- G. Rubber hand bulb.

The technique of administration is relatively simple. An oxygen tank is fitted with a reducing valve. A glass Y-tube is inserted in the rubber tubing used to connect the nebulizer and the reducing valve in such a way that one stem of the Y is left open. The oxygen stream does not enter the nebulizer until the open end of the Y-tube is closed by the patient, who places

a finger over the open end of the Y-tube and holds it there each time he inhales through the nose pieces of the apparatus. This technique conserves penicillin which would otherwise be blown out of the nebulizer through the intake opening, were the patients allowed to exhale against the oxygen stream. To further conserve the biotic, the rebreathing bag is attached to the connecting tube between the vaporizer and the nose piece and receives the exhaled air with any penicillin mist it may contain and thus permits the latter to be inhaled again with the next breath. Rarely does the accumulation of carbon dioxide (CO_2) in this bag become sufficient to cause the patient to hyperventilate; but should this happen, the rebreathing bag is simply emptied of its contents and refilled with oxygen. It is comparatively easy for the patient of average intelligence to master this technique for closing the Y-tube at the start of inhalation and for opening it during the expiratory phase.

If the hand bulb type of nebulizer is to be used, the Y-tube and the coils of rubber tubing are omitted and air is forced through the nebulizer into the nose or open mouth as the patient inhales. This method takes longer than the former one but can be used when oxygen equipment is lacking. Nebulizer units such as the one just described are commercially available.*

The amount of penicillin administered by inhalation can be varied, of course, but 20,000 units of the sodium salt of penicillin dissolved in one cubic centimeter of water is the amount ordinarily administered at three hourly intervals. When the rate of oxygen flow is set at five (5) to eight (8) liters per minute, a one cubic centimeter solution of penicillin can be aerosolized in approximately fifteen minutes.

INDICATIONS FOR THE USE OF PENICILLIN AEROSOL

Penicillin inhalations are, in general, indicated for the treatment of all respiratory infections caused by organisms susceptible to penicillin. According to Segal and Ryder^{1,2} of the Boston City Hospital, this therapy is of benefit in the treatment of bacterial pneumonia,

* Manufactured by McAllister Bicknell Co., Cambridge (39), Mass.

bronchiectasis, lung abscess and infective bronchial asthma. They conducted extensive investigations and reported that effective blood levels of 0.028 to 0.223 units per cubic centimeter were obtained. This implies that the local concentration of the biotic must have been high and, as a consequence, its effectiveness should have been enhanced.

Dr. Gilbert Clapperton, Director of Anesthesia at the Central Maine General Hospital, assisted with the procurement of the necessary equipment and instructed the nursing personnel in the technique of administering penicillin by inhalation therapy.

Since the total number of treated patients in any one group in this series is, as yet, too small to be of any real value from the statistical standpoint, no attempt has been made in this paper to present a summary on each patient in the series; but instead, a group of eight (8) patients, considered to be representative examples of some of the conditions which have benefited from penicillin aerosol therapy, have been selected for case presentation.

CASE REPORTS

Case I

R. B., No. 110268. A 65-year-old male mill worker entered with chief complaint of cough and weight loss for one year. History revealed that patient had always suffered from coughs which were productive of large amounts of white mucoid material and which had become worse during the past year. Shortly before admission he developed pleuritic pain of sufficient severity to cause him to seek hospitalization. He had had pneumonia on several occasions in the past. A large pleural effusion developed after an attack of pneumonia in 1926; and the parentesis performed was productive of clear straw colored fluid. This patient had worked for years in the paper mill in a room filled with sulphur dioxide fumes.

Physical examination revealed dullness at both apices with crackling rales throughout both lung fields.

Laboratory data: Urinalysis and blood counts were essentially normal. Non-hemolytic staphylococcus albus and *C. Hoffmanni* organisms were grown from cultures of the sputum.

Dr. Roland D. Clapp, Roentgenologist at the

hospital, read the admission chest film and reported the presence of pleurodiaphragmatic adhesions; calcifications in the peri-hilar regions; slight clouding of costo-diaphragmatic angles and marked fibrosis of the right lung. A roughly triangular shadow of fluid density with sharply defined lower margin but blending with densities surrounding it at the upper margin was noted at the eighth interspace posteriorly, and this shadow was interpreted as representing X-ray evidence of a long standing infection which was still active. A chest plate taken ten days later showed clearing of these areas of decreased radiance.

In the interval between the two chest plates the patient had received inhalations of 20,000 units of penicillin given six times daily over a period of five days for a total of 600,000 units. The patient made a remarkable clinical improvement with complete disappearance of cough and of sputum. The area of increased density had cleared on the repeat X-ray taken ten days after the penicillin inhalations were begun. The patient's appetite returned and he gained in weight and strength. There has been no recurrence of signs or symptoms after an interval of three months.

Case II

V. S., No. 110074. A 63-year-old male hospital porter entered with the chief complaint of cough and malaise. History disclosed that a chronic productive cough had begun a year previous after a pneumonic infection and had persisted until this admission. Recently, the patient had complained of malaise and easy fatigue.

Physical findings were essentially normal.

Laboratory data: Urinalysis and blood counts were normal. Micrococcus catarrhalis and yeast organisms were grown from cultures of the sputum.

Admission X-ray plate of the chest showed increased density in the upper right lung field and mottled density at the right base. A plate taken six weeks later showed no essential change in the areas in question. Fluoroscopic study of pharynx and esophagus with the aid of thick barium paste revealed a diverticulum 1.5 cm. in length located on the left about two cm. above the lower end of the pyriform sinus and extending posteriorly.

Patient was treated symptomatically at first without relief of the cough or reduction in the amount of sputum. He was given 1,680,000 units of penicillin intramuscularly in divided doses at three-hour intervals over a period of seven days, but no beneficial effect was noted at that time. After an interval of two weeks, penicillin inhalations were begun with 20,000 units given six times daily over a period of seven (7) days for a total of 820,000 units. The cough subsided and the sputum decreased in quantity until only a small amount was expectorated in the early morning. The patient was discharged within ten days after the penicillin inhalations were begun. There was a moderate recurrence of cough about three weeks after discharge but this exacerbation lasted only a few days and was not severe enough to prevent him from continuing at his work.

Case III

J. K., No. 110513. A 55-year-old male electrician entered with chief complaint of cough, anginal type pain and one episode of syncope. History disclosed that he had had intermittent precordial pain radiating down the left arm on exertion, for about one year. (An electrocardiogram at one time during such an attack was interpreted as showing coronary pathology.) Two weeks prior to admission this patient had contracted a severe grippe-like respiratory infection characterized by fever, chills, generalized aches and pains. He soon developed a severe cough, productive of large amounts of greenish mucoid tenacious sputum which was extremely difficult for him to raise. He was unable to sleep because of the severe persistent cough and pain in the right side from a rib fractured in one of the paroxysms of cough. Two nights before admission patient had an episode of substernal pain, dyspnea and cough; and while on his way from his bed to the toilet, "blacked out" and fell forward onto his face and chest without sustaining serious injury to himself.

Physical examination showed local periosteal tenderness over the 8th and 9th ribs in the right mid-axillary line. Lungs were hyper-resonant and fine rales were audible at both bases. It was impossible to percuss the heart because the cardiac dullness was obliterated by

the hyper-resonant pulmonary percussion note. The heart sounds were very faint but neither murmurs nor thrills were made out.

Laboratory data: Urinalysis and blood counts were normal. Sputum cultures showed pneumococci as the predominatory organism. X-ray of the chest was read as essentially negative.

Patient was placed on penicillin inhalations; 20,000 units in 1 cubic centimeter of solution was nebulized every three hours for six administrations daily over a period of four days, for a total of 480,000 units. After the first few inhalations the cough and sputum decreased rapidly in intensity and in amount and the basal rales heard on admission decreased in number but did not completely disappear. Patient was discharged much improved and a follow-up examination at the end of two months showed him to be free of symptoms and without a history of any recurrence of his cough.

Case IV

R. P., No. 110709. A 64-year-old white housewife entered in an acute attack of bronchial asthma which had lasted for three days and had not responded to the usual therapy. History disclosed that patient had had asthmatic attacks at intervals for the past five years. The present attack had been precipitated by an episode of "flu" subsequent to which patient developed a severe cough productive of large quantities of yellow sputum.

Physical findings on admission included cyanosis and acute respiratory distress. Lungs were resonant throughout but musical rales were heard over both lung fields while fine moist rales were heard over the right base.

Laboratory data: Urinalysis and blood counts were essentially normal. Sputum cultures showed pneumococci and streptococci as the predominating organisms.

X-ray of the chest showed the lungs to be clear.

Patient was placed on nasal oxygen and was given aminopylline and adrenalin in oil parenterally. The initial temperature of 101° was maintained for five days. Shortly after admission, patient was tried on penicillin inhalations but felt too ill to master the simple technique necessary for successful administration. After two trials which seemed to exhaust her, she

was given intramuscular penicillin, 40,000 units every two hours for four doses, then 25,000 units every three hours for twelve times for a total of 570,000 units. Administration of penicillin by inhalation was then resumed with the full coöperation of the patient and 40,000 units per cubic centimeter were given six times daily for six days for a total of 1,360,000 units. Each inhalation of penicillin was preceded by the inhalation of 0.25 cubic centimeters of a 1:100 aqueous solution of adrenalin in order to obtain an optimal dilatation of the bronchial musculature. Under this regime of therapy the patient improved steadily as manifest by disappearance of cough and the subsidence of the asthmatic breathing. The lungs became entirely clear to auscultation. No recurrence has been reported after an interval of two months.

Case V

L. W., No. 110026. A 67-year-old white housewife entered with chief complaint of cough and difficult breathing. Patient had a history of auricular fibrillation not controlled by digitalis, and of congestive heart failure. The cough was productive of copious amounts of white sputum; and it also aggravated a post operative ventral hernia she had.

Physical examination revealed a patient in moderate respiratory distress. Heart was enlarged to left and the rhythm was totally irregular—no murmurs were heard. Examination of the lungs showed dullness at the extreme right base. Breath sounds had a prolonged expiratory phase and musical rales were audible throughout both lung fields. Palpation of the abdomen revealed the presence of a large ventral incisional hernia.

Laboratory examinations showed essentially normal blood counts but examination of the urinary sediment showed 10-30 WBC per high power field. Diphtheroids and micrococcus catarrhalis were grown out from cultures of the sputum.

X-ray films of the chest on three occasions were reported as showing clear lung fields and no evidence of pulmonary infection or of cardiac failure.

The patient was treated with ephedrine and adrenalin and digitalis first with very little improvement. The productive cough persisted. Patient was then started on penicillin inhala-

tions; 20,000 units per cubic centimeter six times daily and continued for eleven days. Patient intensely disliked the inhalations and frequently refused them at first, but on each such occasion the 20,000 units were given intramuscularly. Patient claimed that the inhalations caused her to feel dizzy and to vomit. The cough persisted but the sputum changed in character from the tenacious mucopurulent type to a thin, watery saliva-like material. The cough decreased progressively as the inhalations were given but did not completely stop until one week after the therapy had been discontinued. The cough regressed and the asthma improved as the bacterial flora decreased following the penicillin inhalations. Patient was much improved and after five weeks she felt well enough to return home.

Case VI

M. M., No. 110556. A 50-year-old housewife entered with chief complaint of severe cough. Patient had had chronic bronchitis for 14 years and diabetes mellitus for two years. She developed an upper respiratory infection two weeks before and a severe grippé-like infection three days before admission; and these two infections brought about an acute exacerbation of the chronic bronchitis characterized by severe spasms of dry non-productive cough.

Physical examination revealed a patient who had frequent severe paroxysms of coughing. The respiration showed a characteristic prolongation of the expiratory phase and medium crepitant rales were heard at the left base.

Laboratory findings: Blood counts essentially normal. Urinalyses showed sugar in varying amounts. The fasting blood sugar was elevated. Sputum cultures showed non-hemolytic streptococci and micrococcus catarrhalis.

X-ray of chest on admission was reported as showing decreased radiance at the left base and was interpreted as evidence of active infection. Re-examination after ten days showed clearing of the area in question. A Lipiodol study failed to reveal bronchiectasis. Patient was given a total of 120,000 units of penicillin intramuscularly in her first twelve hours at the hospital. Penicillin inhalations of 20,000 units were then given six times daily. At first the patient thought the inhalations nauseated her and they were discontinued for a period of twenty-four

hours; but dilaudid was found to be the true offender. Patient then resumed the inhalations and took them well over a period of nine days for a total of 1,800,000 units of penicillin. At the end of therapy patient was free of cough and repeat X-ray showed complete clearing of the inflammatory area at the left base. The patient has remained free from a recurrence of cough for three months.

Case VII

F. R. This 56-year-old married white contractor with chronic bronchitis and asthma was treated at home with inhalations of penicillin mist nebulized by forcing air through the apparatus shown in Fig. I. This patient has had bronchial asthma attacks intermittently for as long as he could remember, and continuously for ten years to the personal knowledge of his physician. The inhalation of certain pollens, dust and cold air were known to aggravate the asthmatic condition; whereas, the inhalation of the fumes from asthma powders relieved the respiratory difficulties. A considerable quantity of mucopurulent sputum had been raised daily for several years; but tubercular organisms had never been found in any of the specimens examined in the past.

This patient had rheumatic fever and rheumatic endocarditis during childhood which left him with mitral stenosis. Persistent swelling of the lower legs and feet developed in the early fall of 1945 and abdominal distension caused by ascites appeared somewhat later in November of the same year. Dyspnea and orthopnea increased and necessitated the administration of mercurial diuretics. However, after a few weeks it had become apparent that ascitic fluid was accumulating despite the frequent injection of the mercurial diuretics. Abdominal paracenteses became necessary and were performed on February 5, 1946, with the removal of over five quarts of dark greenish-yellow ascitic fluid and again on February 20, 1946, with the removal of approximately five quarts of slightly bloody ascitic fluid. An enlarged nodular liver and numerous hard tumor masses in the abdomen were easily palpable immediately after the paracentesis.

The asthmatic breathing, which had become more labored and difficult as the abdominal distension increased, was not noticeably relieved

after the abdominal paracenteses and was no longer favorably affected by the asthmatic remedies previously employed. Meanwhile, there had been a definite increase in the quantity of sputum raised each day. It appeared likely that the patient was allergic to the bacteria in his bronchi and that penicillin aerosol might benefit him by substantially reducing the bacterial flora in his respiratory tract. A bulb type of hand operated nebulizer, similar to the one shown in Fig. I, was obtained for use at home. Penicillin inhalations were begun on February 7th, 1946, with the administration of 20,000 units every three hours and were continued for five days for a total of approximately 400,000 units of the biotic. The respirations had become much less labored and the sputum, which had become thin and much less purulent, was coughed up with greater ease. By the end of the fifth day of treatment and for the first time in many years he was able to lie down flat and to breathe normally without audible wheeze. There were no recurrent asthmatic attacks during the subsequent two months prior to his rather sudden death. A few musical rales were detectable at times in both lung fields, but he continued to breathe easily and to expectorate a thin, nonpurulent sputum without difficulty. His appetite increased and his weight and strength improved a little despite the carcinomatosis.

Case VIII

H. G., No. 110712. This 50-year-old married white female entered the hospital on the 5th of February, 1946, for penicillin inhalation therapy.

Present illness began early in the spring of 1945, with a fairly severe spasmodic type of non-productive cough which continued through the summer and fall and into the winter of 1946. A mild amount of discomfort had been experienced at times in the left chest posteriorly near the angle of the scapula. Hoarseness, hemoptysis, weight loss, and the expectoration of foul smelling sputum were denied by the patient.

Past history revealed that the patient had been a known epileptic for many years and had taken three Dilantin (1½ grain) capsules daily for several years; but in spite of this she had an occasional severe epileptic seizure. A par-

ticularly severe seizure had occurred in December, 1944, when she fell and broke her nose. She may have had one of these severe epileptic seizures in the spring of 1945, just prior to the onset of the present symptoms of cough, and she could have aspirated blood of foreign material into the lower respiratory tract from the throat during such a seizure; but the occurrence of such an attack could not be verified with absolute certainty. There was no history of aspiration of foreign body into the respiratory tract during consciousness.

Physical examination revealed a well-developed, well-nourished female who had occasional spasms of non-productive cough. The sinuses, nose and throat were essentially negative. There were no physical signs demonstrable in either lung field. The heart was negative. Abdomen and extremities were negative.

An X-ray of the chest, taken at the Central Maine General Hospital on December 19, 1945, showed that the diaphragms were in average position, smooth in outline and the costodiaphragmatic angles were clear. Outline of the heart and supracardiac shadows were within normal limits. No displacement of the trachea was noticed. The right lung showed a 3.5 centimeters patch of decreased radiance at the level of the eighth interspace in the posterior axillary line. A lateral view of the chest and fluoroscopic examination of the lungs showed that this area of decreased radiance was in the lower lobe, that the margins were ill-defined and that it moved with the lung on inspiration and expiration. The roentgenologist was unable to say whether this area of decreased radiance was caused by an inflammatory process or by a tumor growth.

The patient was given symptomatic treatment for one month, including expectorants with dilaudid and codein added to check the spasms of cough. At this time a repeat X-ray film of the chest showed no demonstrable change in the size, contour or density of the mass.

On February 5, 1946, the patient was sent into the hospital for a five-day course of treatment with penicillin aerosol (mist), as it was felt that this form of therapy might prove of value if the lesion was inflammatory in origin and produced by a penicillin sensitive organism.

She was given 20,000 units of penicillin by inhalation technique every three hours, day and night. A total of 800,000 units of penicillin was administered during this five-day period in the hospital. Only slight decrease in cough was noted during this treatment period and this may have come about as a direct result of bed rest and the decrease in physical activity which was brought about by confinement in bed.

An X-ray film of the chest taken on the fourth day of this treatment and another one taken about two weeks later showed that the lesion in the right lower lung field was essentially unchanged in size, shape and density. It was felt that penicillin aerosol had proven ineffective as a therapeutic agent in this particular case.

SUMMARY OF CASES

I (R. B.)

A pulmonary infection with atelectasis responded satisfactorily to penicillin aerosol therapy without relapse. The cough and expectoration ceased promptly after penicillin inhalations were begun and the patient gained rapidly in weight and strength.

II (V. S.)

This patient had been confined to bed in the hospital for many weeks by a severe productive cough which accompanied a chronic bronchitis and fibrosis of the right lung. The cough and the amount of sputum raised decreased rapidly when penicillin inhalation therapy was instigated, and general improvement was sufficiently rapid to make possible his discharge from the hospital and his return to work within a week after penicillin inhalations were stopped. There have been short mild relapses with exacerbation of the coughing during the three months since discharge from the hospital but none have been severe enough to necessitate any loss of time through work stoppage. It is of interest here that this man had not been appreciably benefited when the penicillin had been given intramuscularly.

III (J. K.)

A patient with a history of coronary artery pathology and of chronic bronchitis who did

not respond to symptomatic treatment but who did obtain prompt relief from his symptoms following hospitalization and instigation of penicillin inhalations. This cough had been so violent that he cracked a rib in one of his paroxysms and so persistent that he could get no rest or sleep, either by day or by night. It was felt that his cardiac condition might well have been seriously aggravated had his cough been allowed to continue unabated.

IV (R. P.)

This patient was critically ill with what appeared to be a severe acute exacerbation of an asthmatic bronchitis caused by a sensitivity to bacteria and unrelieved by administration of the usual antispasmodic drugs. She responded satisfactorily to penicillin aerosol and intramuscular penicillin therapy combined and went on to make an uneventful recovery.

V (L. W.)

This patient was admitted to the hospital critically ill with a severe acute exacerbation of an asthmatic bronchitis which followed an acute upper respiratory tract infection and was most certainly caused by sensitivity to bacteria in the respiratory tract. The ordinary antispasmodic drugs were ineffective; but there was a satisfactory and prompt response when a combination of penicillin aerosol and parenteral injections of the biotic were administered. Thereafter, recovery was uneventful and there has been no recurrence of the asthma since discharge of the patient from the hospital two months ago.

VI (M. M.)

This patient had diabetes mellitus and had had chronic bronchitis for many years. A rather severe accerbatation of an asthmatic bronchitis followed an acute attack of influenza and was not relieved by bed rest and administration of the usual antispasmodic drugs. The asthmatic symptoms and the cough subsided rapidly once penicillin inhalations were begun. Thus, the number of ineffective and hospitalization days may well have been substantially shortened and a serious exacerbation of her diabetic condition prevented through the use of penicillin aerosol therapy. Severe signs and symp-

toms were known to have persisted for a much longer period of time on previous occasions.

VII (F. R.)

This patient had a severe chronic bronchitis, bronchiectasis and bronchial asthma of many years duration. After a short five-day course of penicillin aerosol therapy the bronchial secretions became much thinner and were easier to raise, and this patient was able to breathe comfortably for the first time in many years. The long interval of almost complete relief from asthmatic symptoms in such a chronic case, which followed a comparatively short five-day period of penicillin aerosol therapy, was equally as gratifying as it was amazing to behold.

VIII (H. G.)

This patient had a lung lesion which was not appreciably affected by penicillin aerosol therapy administered as a diagnostic test agent in this instance. It was impossible to determine by the usual diagnostic measures whether the pulmonary lesion shown by X-ray in the right lung was a tumor mass or was an area of inflammation. Had this lesion decreased in size or disappeared completely after a course of penicillin inhalation therapy, the tumor possibility would have been completely ruled out. An inflammatory lesion caused by a penicillin resistant organism would have remained unchanged, of course, and hence cannot be ruled out either; but an inflammatory mass caused by a penicillin sensitive organism should have regressed after penicillin aerosol therapy.

DISCUSSION

When penicillin first became available for clinical use, it was ordinarily necessary to administer the biotic parenterally every three hours during the entire day and night. Consequently, a patient was obliged either to enter the hospital for his penicillin injections or procure special nurses if the treatment was to be given at his home. Considerable research has been devoted to a study of other methods and additional routes by which penicillin might be successfully administered. One of the most promising of these recent developments has been the use of penicillin aerosol, which is a

suspension of penicillin solution in oxygen or air. This method of therapy has found its greatest usefulness thus far in the treatment of respiratory infections caused by penicillin sensitive organisms. Promising therapeutic results have been reported following the inhalation of penicillin by patients with chronic bronchial asthma of bacterial origin,^{1, 2, 3, 7} chronic bronchitis,^{1, 2, 3} bronchiectasis,^{1, 2, 3, 4} acute lung abscesses,^{1, 2, 3} pneumonitis,⁷ and certain types of pneumonia,^{1, 2} acute and chronic sinusitis,⁷ et cetera. Furthermore, some evidence has been presented to suggest that penicillin when nebulized and inhaled may prove more effective in the treatment of certain respiratory infections than it does when given parenterally in the same type of case.

Apparatus suitable for administering penicillin aerosol became available at the hospital about five months ago. A sufficient number and variety of cases have now been treated with penicillin inhalations and have been observed for an adequate period of time following completion of therapy to permit a preliminary evaluation to be made concerning the results obtained. From the group treated with penicillin aerosol therapy eight patients have been selected as fairly representative examples of the various conditions which might reasonably be expected to respond to this form of penicillin therapy. These eight case records were summarized and included above.

In general it has been our impression that penicillin aerosol was of most value in the treatment of subacute and chronic infections of the lower respiratory tract produced by penicillin sensitive organisms. Bacterial asthma or so called "asthmatic bronchitis," chronic bronchitis with an acute exacerbation, chronic bronchitis complicated by bronchopneumonia, bronchiectasis, and pneumonitis were the disorders encountered most often in our series; and representative examples of each of these infections have been included in the case summaries presented above. Other investigators have reported beneficial results for patients with sinusitis⁷ and acute and chronic lung abscesses,^{1, 2, 3} but, thus far, it has not been our privilege to treat patients with sinusitis or lung abscess.

Penicillin aerosol therapy should certainly not be expected to cure patients with long standing chronic bronchitis, or chronic bronchiectasis, or asthmatic bronchitis with emphy-

sema and fibrosis of the lung, or large thick-walled chronic lung abscesses, or chronic sinusitis accompanied by polyposis and thickened lining membrane inside the sinuses. In many instances, however, this form of therapy might be expected to greatly lessen the severity of accompanying secondary infection and in that way to substantially shorten the convalescent period. This assumption would appear to be proving out in practice. Penicillin aerosol therapy should be of great value in substantially lessening the very long periods of time now lost from work by persons who have recurrent acute exacerbations of these various chronic respiratory diseases.

SUMMARY

1. The apparatus used to nebulize a solution of penicillin has been described.
2. The technique for the administration of penicillin aerosol has been outlined.
3. The indications for therapy with penicillin aerosol have been discussed.
4. Case summaries for eight cases treated with penicillin aerosol have been included.

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Benadryl — A New Anti-Histamine Agent in Allergic Diseases

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INTRODUCTION

The advent of any new pharmaceutical preparation designed to give immediate results from its use naturally finds a popular appeal with physicians in particular and with the public in general.

A drug called Benadryl recently released to the medical profession has already begun to assume a popularity which is gaining momentum daily. Newspapers and magazines with their feature writers have climbed the band wagon and are merrily voicing the plaudits of a drug which, eventually, will find a decent home in the armamentarium of the medical profession. This article is a plea for its proper use and sane evaluation.

Benadryl, a chemical compound synthesized by Rieveschl and Huber, possesses both anti-allergic and anti-spasmodic activity. The first publication dealing with Benadryl appeared in the medical literature in February of 1945. The report was by Loew, Kaiser and Moore, who did their work in the Research Laboratories of Parke-Davis and Co. Loew, who is now at the College of Medicine, University of Illinois, has had considerable experience in this field. He previously had studied a number of anti-histamine compounds. In the search for more potent compounds he and his associates screened a series of twenty-one benzhydryl ethers and amines by a test which determined the degree of protection each compound gave against bronchospasm induced in guinea pigs by exposure to an atmosphere containing atomized solution of histamine. Three of the benzhydryl ethers were found to have high antihistamine activity and low toxicity, and of these beta dimethylaminoethyl benzhydryl ether hydrochloride (benadryl) was the most promising. In a later publication Loew and Kaiser demonstrated that previous treatment with Benadryl reduced the severity of anaphylactic shock in guinea pigs.

Benadryl appears to belong to a new and

separate pharmacologic group which has the distinct property of preventing at least some of the pharmacologic effects of histamine. It is a white crystalline powder which may possibly be slightly opalescent. It is soluble in water and alcohol and is stable under ordinary conditions of temperature and pressure.

Pharmacologic studies on animals suggest that Benadryl has three significant actions. It alleviates (1) the bronchial constriction caused by histaminic or anaphylactic shock; (2) the vasodepressor effects of histamine; and (3) the spasm of smooth muscle. Horton and McElin administered Benadryl by the oral intramuscular and intravenous routes and showed that Benadryl (1) decreases the cutaneous vasodilatation of the mucous membrane caused by histamine; (2) alleviates the nasal congestion induced by the vasodilatation of the mucous membrane caused by histamine; (3) may decrease the response of the gastric acids and the volume of gastric secretion provoked by the administration of histamine; and (4) depresses the wheal and flare response in cases of hyper-sensitiveness to cold.

Horton and McElin observed a patient known to have hyper-sensitiveness to cold who had been studied extensively in the past. The blood histamine of this patient had risen during and immediately after a period of active response to cold, demonstrating that "H" substance in this case was definitely histamine. They produced a typical wheal and flare on this patient's forearm by holding a standardized ice cube on one spot for three minutes.

The Benadryl was given intravenously for ten minutes and the cube was applied to the opposite forearm for a similar period. The response to the ice cube on this occasion was estimated to be about 50 per cent less than that produced before the giving of Benadryl. This may be one of the most definitive demonstrations of histamine antagonism ever observed.

INDICATIONS

Benadryl has been used successfully as an antihistamine agent in various allergic entities and as an anti-spasmodic to a lesser extent. Dermatoses of unknown cause also respond to Benadryl therapy.

Various entities in which Benadryl has been used effectively are listed below.

As an anti-allergic: Contact dermatitis, Erythema multiforme, Vasomotor Rhinitis, Drug sensitization, Hay Fever, Serum reactions, Urticaria, Dermographism.

As an anti-spasmodic: Dysmenorrhea.

Effectiveness of Benadryl in treatment of the following conditions has not been fully established but extensive clinical observation indicate therapeutic usefulness, hence, warrant their mention: Angioneurotic edema, Asthma, Cardiospasm, Dermatomyositis, Eczema, Food sensitization, Hiccough, Migraine, Pruritus (associated with dermatosis), Spastic colitis, Tinnitus (Meniere's), Vesico-urethral spasm.

DOSAGE

Benadryl is supplied in two dosage forms: as capsules (hermetically sealed) each containing 50 mg. Benadryl and as an elixir, each 4 cc. (one teaspoonful) containing 10 mg. Benadryl.

The average dose for an adult is one capsule (50 mg.) three or four times daily. In treatment of acute conditions, patients should be instructed to await the effect of the first dose for at least two hours, since partial to complete symptomatic relief may follow the initial dose. In this event, a second dose may not be required for five or six hours. In severe, acute, or chronic states, an intensive dose schedule will probably be necessary as much as 6 or 8 capsules daily being required to control the condition. When partial or complete relief is obtained, 1 or 2 capsules daily will usually be sufficient to prevent recurrence of symptoms.

Children up to 12 years of age may be given 1 to 2 teaspoonfuls of Elixir Benadryl three or four times daily until the condition is controlled; after which a maintenance dose should be determined.

It is suggested 2 mg. per pound (0.5 kg.) of body weight is an effective dose in most instances for children.

Some beneficial effect of Benadryl in responsive conditions may be expected to be manifested within a few hours following oral administration. More resistant conditions may show minimum response within one or two days, in which case dosage may be increased.

Some patients experience a sensation of drowsiness following ingestion of Benadryl. The soporific effect is extremely variable and alarming at times. A discussion of this side effect will be discussed later, but in my opinion it cannot be emphasized too much at this time. Drowsiness may follow the first dose in some patients or appear only after several days' treatment. Temporary reduction in dosage and administration of stimulants such as black coffee, caffeine or ephedrine will prevent or alleviate this reaction. In some instances, it may be advisable to reduce dosage to a level which will just control symptoms without causing drowsiness.

Nausea may be experienced by some patients, in which event a glass of milk or other beverage with toast or crackers may be taken immediately before ingesting the drug.

With the exception of the above, there is no available evidence of delayed or cumulative action, or side-effects or of incompatibilities of Benadryl.

CAUTION: Any hypnotics or sedatives such as barbiturates or opium derivatives should certainly be administered with extreme caution to patients receiving Benadryl.

Horton and McElin have followed the erythrocyte, leukocyte and differential blood counts, level of hemoglobin and urinalyses on a representative group of patients and have found no abnormal changes. No abnormalities of the platelet counts, bleeding time, clotting time or blood urea nitrogen were noted in a small group maintained on quite high dosages for a considerable period.

CLINICAL APPLICATION

McElin and Horton reported their clinical experience with Benadryl in patients, selected as presenting complaints "thought to be due whole or in part to the release of H substance." These clinicians obtained good to excellent results in 22 of 23 cases of hay fever, 6 of 7 cases of vasomotor rhinitis, 2 cases of Meni-

ere's disease associated with urticaria, 2 of 4 cases of asthma, 2 of 4 cases of histamine cephalgia and 2 cases of urticaria and angio-neurotic edema.

Koelsche, Prickman, and Carryer recently reported eighty-three patients suffering from hay fever or bronchial asthma or both treated by the oral administration of Benadryl in doses of 50 to 100 mg. three times daily. Patients who failed to receive at least 50 per cent relief of symptoms were considered not benefited. Out of the entire group, fifty-seven patients (69 per cent) reported benefit. Out of fifty-two cases suffering from hay fever alone thirty-nine patients (75 per cent) reported benefit, and thirteen (25 per cent) stated that they failed to obtain any relief. In nineteen cases of asthma associated with hay fever, fourteen (74 per cent) reported benefit while five reported none. The results in bronchial asthma alone were much less encouraging. Out of twelve cases, four reported benefit while one reported none. In hay fever patients relief of the nasal discharge and of the irritating feeling in the nose and eyes was noted within sixty minutes after 50 mg. of Benadryl was taken. The relief lasted five to eight hours. Protocols of the types of cases treated are not included in the report. The authors fail to state whether any of the patients treated had also received specific therapy and at what period of the pollinating season treatment with Benadryl had been instituted.

Logan reported twelve children having seasonal hay fever treated during the season. The offending substance was ragweed in most of the cases. Three of these patients had associated asthma. The results of treatment of the hay fever were recorded as excellent or good in nine cases, fair in one, questionable in one, and no effect in one. The results on the associated asthma were recorded as good in one case, fair in one, and questionable in one.

At the November (1945) meeting of the Southern Medical Association, Waldbott reported highly favorable results obtained with Benadryl in treatment of hay fever, vasomotor rhinitis and urticarial and pruritic dermal conditions.

Curtis and Owens reported use of Benadryl in 18 patients suffering from acute and chronic urticaria. Eleven patients experienced

prompt relief of symptoms, 3 were definitely improved while 4 failed to respond. These investigators state that Benadryl is palliative only and that symptoms recur promptly when the drug is discontinued. They point out, however, that administration of Benadryl during the period required to determine the etiology and subsequent treatment of such conditions affords welcome relief to many patients.

In the experience of O'Leary and Farber, response to Benadryl in treatment of acute and chronic urticaria is both consistent and dramatic. Of 15 patients who had acute urticaria (average duration sixteen days) 9 experienced prompt relief, 4 improved, while 1 obtained no relief. The nine most responsive patients experienced a decrease or disappearance of pruritus in from twenty to sixty minutes after initial dose, and disappearance of lesions within two to six hours. Thirty-five patients with chronic urticaria of four months to thirty years' duration received Benadryl. Lesions of 25 disappeared completely except for the occasional presence of a few nonpruritic hives. Seven patients were definitely improved while 3 were not benefited.

This series of forty-six cases under my observation is a small group from which one may draw any definite conclusions. I was impressed with the fact that fourteen out of sixteen asthmatic cases who showed no improvement had suffered with a bacterial type of asthma over a period of several years. All other medication was withdrawn during the trial use of Benadryl, and most of the cases were observed for a period of one to six weeks. The daily dose of Benadryl was 50 mg. to 300 mg. depending on the type of case, side effects and results.

A 2½-year-old child with asthma, tolerated 75 mg. daily with good results. Fifty per cent of the series complained of a dry mouth, while 25 per cent suffered from drowsiness which was quite variable in degree. One patient experienced marked nausea and nervousness, and one developed moderate visual symptoms with difficulty in focusing the eyes. After reduction in dosage, or after several days use of Benadryl, the initial symptoms usually subsided. All patients were cautioned about the side effects of the drug, especially its soporific tendency.

RESULTS OF TREATMENT OF BENADRYL IN FORTY-SIX CASES

DIAGNOSIS	CASES	RESULTS		
		Excellent	Good	No Improvement
Bronchial Asthma	25		5	20
Angio Neurotic Edema	3	2	1	
Vasomotor Rhinitis	4	2	1	1
Chronic Urticaria	5		3	2
Acute Urticaria	2	2		
Migraine	3	1	1	1
Eczema	1			1
Neuro-Dermatitis	1			1
Hay Fever	1	1		
Scarlatinoid Dermatitis	1			1

Case 1. A 33-year-old World War II veteran was discharged from the army in December, 1945, after suffering miserably with Bronchial Asthma for a period of 10 months previous to discharge. He had been found allergic to dust and ragweed, and was treated during his stay in the army with no improvements. His response to all types of medications was poor for three months after discharge, and a trial use of Benadryl was advised. The patient took his first capsule of 50 mg. at 11.30 A. M. An hour later, he felt slightly drowsy while visiting friends and decided to go home to rest. He managed to drive home in his car and walk into his bedroom and immediately dropped off into a sound sleep, partially clothed. His wife was quite disturbed and attempted to rouse him with no success. The patient slept as if in a deep coma for a period of two hours, following which he awoke and felt quite refreshed. His mouth was very dry, but his asthma had subsided. The patient did not recall any details of the attempts to awaken him during his peaceful slumber. Subsequently, he took 200 mg. of Benadryl daily with good results, and only complained of slight dryness and occa-

sional nervousness. The latter symptom grew worse and the drug was discontinued after three weeks' trial.

Case 2. The most spectacular results from the use of Benadryl were obtained in a thirty-year-old married female who had been suffering with severe migraine for a period of ten years. Ergotamine Tartrate gave immediate relief but left the patient with severe side effects. Two months previous to the use of Benadryl the patient was experiencing attacks of migraine every 4-5 days. Within 45 minutes after taking 50 mg. of Benadryl, she was relieved of her symptoms. She has experienced no attacks since this drug was started. The medication has only been taken at irregular intervals when the aura of the migraine starts, and each bout is promptly controlled by 50 mg. of Benadryl.

The cases of acute and chronic Urticaria responded well to Benadryl. Unfortunately in this small series, and because the pollen season has not yet arrived, I have not had an opportunity to use this drug in many cases of hay fever. I hope to report this group at a later date.

The President's Page

For some reason or other, I can't help but feel disturbed at the seeming lack of understanding on the part of many of our members, concerning the several present day problems with which we are confronted. It is not agreeable for you, to have some one incessantly harping about our errors and mistakes of the past nor does one enjoy hearing repeated warnings for the future. The spectre, the bug-a-boo, the vision of "State Medicine" or "Compulsory Health Insurance" is yet before us. It is not a pretty picture. We don't like it and we don't want it but we can't dodge the issue this time. We cannot sit back complacently or in a self-satisfied manner, and think that all is well, just because the legislative activity surrounding the proposed passage of the Wagner-Murray-Dingell Bill, seems to have been held in abeyance. These boys are still at it and we have good reason to expect a repetition of their attack upon us. The doctors of the nation waked up for once. Ample proof is at hand, showing just what medical men CAN do if they get together and defend themselves! If, as a sequel to indifference, we fail to meet these local problems, which concern you and me, the doctors who carry on in the quarter century yet to come, will have good cause and reason for chagrin and humiliation. Medicine, as we have known it, will be a thing of the past and cease to be an entity. We must plan for the future and whether you like it or not, a decision concerning a plan for Prepaid Medical Care must be made. Just how do you want to handle the proposition? You will be given adequate information by the committee which was appointed for this purpose. Shall we "go it alone" and have the State Society procure an enabling act through Legislature, to set up the machinery? Do you think that the so called "commercial" insurance companies might be the answer? Do you want to play with "outsiders" and be just "one of the crowd?" Talk it over and think about it and make up your mind, that we may vote sensibly when the matter is placed before us for action. Let's no longer "drift" and "trust to luck" and through our indecision, land where we did a decade and a half ago!

The necessity for an Executive Secretary is most obvious. Pardon the bore-some reiteration. An "Outside Relations" man, a person equipped and qualified to look after our varied interests, one who would prod us and stimulate us and marshal us into line,—that is what we want. No half way business will suffice. Times have changed. The War raised havoc with Maine Medicine. Here is your opportunity to build for the future and to do something for those who will carry on, long after we are forgotten. Let's be constructive! You will have to "loosen up" too, if we are to put anything of this sort across!

The program for the Annual Meeting will shortly be in your hands. It is complete and will most assuredly be an enjoyable affair. Much for your entertainment and scientific interest has been arranged. The Poland Spring House will offer more than ever before and it would be well to make your reservations early. We hope for a record breaking attendance.

ADAM P. LEIGHTON, M. D.,
President, Maine Medical Association.

Editorial

The Ninety-Second Annual Session

Last year war restrictions prevented the holding of our annual State Medical Association meeting, except the House of Delegates. This year the Ninety-Second Annual Meeting to be held at the Poland Spring House, Poland Spring, Maine, June 23rd, 24th, and 25th, promises to be unhampered in every way. Those who have been away in the service will have the opportunity of meeting former friends whom they have not seen for several years. Let us make the meeting a real reunion.

Ralf S. Martin, M. D., of Portland, Chairman of the Program Committee, and members of his committee, have made every effort to select subjects of new and general interest for the conferences and scientific sessions. The Program-in-Brief, published elsewhere in this issue, is in itself evidence of their efforts.

The First Meeting of the House of Delegates will be called to order by John O. Piper, M. D., President-elect, at 3.00 P. M., on Sunday, June 23rd. Matters of vital importance to the future of the Association are to come before this meeting necessitating a 100% attendance of delegates. Each county society is familiar with the problems confronting the Association, and will have had an opportunity to instruct its delegates how to vote on these matters.

Sunday evening will be "Welcome Home" for those members who have been released from Military Service. Mr. John O'Connell, Editor of the *Bangor Daily News*, who needs no introduction to a Maine audience, will be guest speaker at this reunion meeting.

Election of the President-elect will take place on Monday, June 24th, at 5.00 P. M., followed by the Second Meeting of the House of

Delegates. The Order of Business for this meeting of the House of Delegates will include the Nominating Committee report of Standing Committees for 1946-1947, for action by the House, the election of a Delegate to the American Medical Association, and the election of Councilors for the Fifth and Sixth Districts.

Adam P. Leighton, M. D., President of the Association, will deliver his President's Address on Tuesday, June 25th, at 2.00 P. M.

Out-of-State speakers at the afternoon sessions will include Reginald Smithwick, M. D., Chester S. Keefer, M. D., and Joe Vincent Meigs, M. D., all of Boston.

H. Clifford Loos, M. D., of the Ross-Loos Medical Group Clinic, Los Angeles, California, will be guest speaker at the Monday evening meeting, and Charles Gordon Heyd, M. D., a Past President of the American Medical Association, will speak at the annual dinner Tuesday evening. A feature of the Tuesday evening program will be the presentation of the Association's Fifty Year Medals to Drs. Thomas Tetreau, Hiram A. Holt, Edward P. Goodrich, and Walter S. Stinchfield, and a ten year service bar to George H. Coombs, M. D., of Waldoboro, who is rounding out sixty years in the practice of medicine.

From scientific discussions to commercial exhibits the meeting promises features worthy of history breaking attendance which seems assured. On the scientific program outstanding papers by leading authorities in the various fields. Commercial exhibits of every nature and description will accentuate the necessity for your attendance and participation.

Let's make this one of the biggest and best medical meetings ever held in Maine.

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Waldo

President, Carl H. Stevens, M. D., Belfast
Secretary, R. L. Torrey, M. D., Searsport

Washington

President, John F. Hanson, M. D., Machias
Secretary, John Young, M. D., Jonesport

York

President, Carl H. Richards, M. D., Alfred
Secretary, C. W. Kinghorn, M. D., Kittery

County Society Notes

Hancock

A regular meeting of the Hancock County Medical Society was held at the Hancock House, Ellsworth, on Wednesday evening, April 10, 1946, at 6.30 P. M.

Following supper, the meeting was called to order by R. E. Weymouth, M. D., President of the Society. He complimented the society members on their attendance; there being fifteen members and three guests present.

It was voted that the Chair appoint three members to act as an Advisory Committee to the group in Ellsworth who are interested in the building, equipment, and maintenance of the Eastern Memorial Hospital in Ellsworth. The following members were appointed by Doctor Weymouth: M. A. Torrey, M. D., Ellsworth; S. A. Coffin, M. D., Bar Harbor; and P. L. Gray, M. D., South Brooksville.

Wilfred J. Comeau, M. D., of Bangor, spoke on *Recent Advances in the Surgical Care of Congenital Heart Disease*. A general discussion followed his presentation of this subject.

J. H. CROWE, M. D.,
Secretary.

Kennebec

The Kennebec County Medical Association held a regular meeting at the Gardiner General Hospital, Gardiner, on March 21, 1946. A. H. Morrell, M. D., President of the Association, presided.

Clarence Elbert Jump, M. D., of Togus, was elected to membership.

The following resolutions were proposed and adopted: 1. That the Kennebec County Medical Association endorse the proposed program of the Public Relations Committee to be presented at the next annual meeting of the Maine Medical Association. 2. That the Association endorse a Public Relations Legislative Agent.

The following papers were presented:

Traumatic Surgery of the Abdomen — M. Tieche Shelton, M. D., Augusta.

X-rays — Ivan McLaughlin, M. D., Gardiner.

Anaesthesia — Thomas F. Fay, M. D., Augusta.

Sterility — Kenneth W. Sewall, M. D., Waterville.

M. TIECHE SHELTON, M. D.,
Secretary.

Penobscot

The Penobscot County Medical Association held its regular monthly meeting in Bangor, Tuesday, April 16th.

From 2.00 to 4.00 P. M., a Clinic was held at the Eastern Maine General Hospital and from 4.00 to 5.00 P. M., Dr. Samuel Proger discussed medical cases.

In the evening, following a dinner at the Bangor House, a brief business session was held. Dr. William M. Shubert, of Bangor, and Dr. William B. Blaisdell, of Bangor, were voted members of the Association.

Continued on page 134

A NEW CEREAL FOR

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The speaker of the evening was Samuel Proger, M. D., Physician at the New England Medical Center, Boston. His subject was *Management of Edema*. There were 58 present.

FORREST B. AMES, M. D.,
Secretary.

York

The spring meeting of the York County Medical Society was held at The New Saco House, Saco, Maine, on Wednesday, April 10th. Dinner at 1.00 P. M. was followed by the meeting at 2.00 o'clock.

The reports of the secretary-treasurer were read and accepted.

Alexander W. Magocsi, M. D., of York Village, was elected to membership.

Frederick R. Carter, M. D., Secretary of the State Association, read the minutes of the last Council meeting. Stephen A. Cobb, M. D., of Sanford, who attended the Council meeting also gave a report of same.

It was voted to instruct the Delegates to vote in favor of raising the State Association yearly dues to

\$35.00, and also to vote in favor of the Basic Science Bill.

The speaker, Dr. Eugene P. McManamy of Portland, was introduced and gave a very interesting talk on *The Care of Burns in the Army During World War II*.

There were eighteen members and four guests present.

C. W. KINGHORN, M. D.,
Secretary.

New Members

Kennebec

Clarence E. Jump, M. D., Togus, Maine.

Penobscot

William B. Blaisdell, M. D., Bangor, Maine.

William M. Shubert, M. D., Bangor, Maine.

York

Alexander W. Magocsi, M. D., York Village, Maine.

News and Notices

State of Maine

Board of Registration of Medicine

Adam P. Leighton, M. D., 192 State Street, Portland, Maine, Secretary.

List of Physicians Licensed to Practice Medicine in the State of Maine, March 12th and 13th, 1946.

Through Examination

Dwight Cameron, M. D., Northeast Harbor, Maine.

Joseph Hebert Hanson, M. D., St. Croix Hotel, Calais, Maine.

Paul G. Lemaitre, M. D., 159 East 25th Street, New York, N. Y.

Robert V. Lorimer, M. D., 201 State Street, Portland, Maine.

Geraldine G. Lynn, M. D., 92 Pine Street, Lewiston, Maine.

Richard O. Monahan, M. D., 1510 Third Street, S. W., Roanoke, Virginia.

Helene M. Reeves, M. D., West Paris, Maine.

Through Reciprocity

Donald Anderson, M. D., Massachusetts Memorial Hospital, Boston 18, Mass.

Anthony Michael Bonanno, M. D., P. O. Box 83, Berwick, Maine.

George C. Calderwood, M. D., U. S. Naval Hospital, Chelsea, Mass.

Francis T. Gidman, M. D., P. O. Box 175, Rumford, Maine.

Richard J. Goduti, M. D., 243 Charles Street, Boston, Mass.

Milan A. Chapin, M. D., 7 Howe Street, Lewiston, Maine.

George L. Maltby, M. D., Bramhall Field, R. F. D. No. 6, Portland, Maine.

Howard R. Ives, M. D., 71 Bowdoin Street, Portland, Maine.

David K. Lovely, M. D., 73 Deering Street, Portland, Maine.

Donald F. Marshall, M. D., 37 Atlantic Street, Portland, Maine.

Barron F. McIntire, M. D., 148 Main Street, Yarmouth, Maine.

Edward J. Platz, M. D., Hackensack Hospital, Hackensack, N. J.

William Shubert, M. D., 501 French Street, Bangor, Maine.

Margaret R. Simpson, M. D., 3 Arcadia Street, Roxbury 19, Mass.

William Spear, M. D., Central Maine General Hospital, 300 Main Street, Lewiston, Maine.

Edward Paul Webber, M. D., Palmer, Mass.

Herbert T. Wilbur, Jr., M. D., Bar Harbor, Maine.

Robert W. Wilson, M. D., 35 Oak Avenue, Riverside 15, R. I.

Richard C. Wadsworth, M. D., 86 Grove Street, Bangor, Maine.

Openings for General Practitioners in Maine

Hancock County. Stonington (714)

Need a general practitioner and surgical doctor badly in this town. Write: Mrs. B. Lake Noyes, Box 297, Stonington, Maine.

Penobscot County. Newport (1370)

Newport and surrounding territory need young doctor. Dr. George Higgins is not in good health and will welcome and cooperate with a newcomer. Hospital at either Bangor or Waterville. Newport situated on Lake Sebasticook, and people have more or less reserved suitable quarters for doctor and his fam-

ily, and space suited for a doctor's office. Write: Mr. Paul V. Witham, Office of the Selectmen, Newport, Maine.

Waldo County. Islesboro (200)

Need physician. Salary paid by the town. Former doctor resigned because of ill health.

York County. Cornish (528)

Want young doctor to take over practice of doctor who wishes to retire. Town is small with many small surrounding towns. Have clothing factory, schools, stores, church, and fine water system. Thirty miles from Portland, and access to good hospitals. Can assure a good practice and home to right man. Write: Samuel G. Sawyer, Main Street, Cornish, Maine.

For further information regarding these areas, please write to Frederick R. Carter, M. D., Secretary, Maine Medical Association, 142 High Street, Portland, Maine.

M. Tieche Shelton, M. D., Named Chief Medical Officer for the Maine Veterans' Administration

M. Tieche Shelton, M. D., Augusta physician and surgeon, and Chatham, Virginia, native, has been named the new chief medical officer for the Maine Veterans' Administration, succeeding Arthur H. Mountford, M. D., who has been transferred to Sheridan, Wyoming.

Announcement of the appointment was made by Chief Medical Director Paul R. Hawley of the VA in Washington, who said that Dr. Shelton would assume his duties May 15th.

Dr. Shelton, who was discharged from the Army last March as Lieutenant-Colonel and is on terminal leave, is a Fellow of the American College of Surgeons.

He was graduated from Duke University in 1922 and received his medical degree from Johns Hopkins,

where he specialized in general surgery, in 1926. He interned at the Church Home and Infirmary, Baltimore, Maryland, and was resident surgeon in St. Mary's Hospital, Pierre, South Dakota.

In 1928, Dr. Shelton organized the medical service for the Kent (Conn.) School. During 1930 and 1931, he was instructor of pathology in Yale University Medical School and the next two years was resident surgeon of Yale University Hospital.

He entered the Armed Forces in July, 1942. He landed on Attu in May, 1943, with a task force, and was stationed there a year. After returning to the States for three months, he went to the European Theater. He served in east Belgium, northern, central and southern Germany, and returned last November.

Maurice A. Priest, M. D., to Retire June 1st

Maurice A. Priest, M. D., of Augusta, will retire from active practice June 1st, after 39 years' service.

Dr. Priest was graduated from Bowdoin Medical School in 1907 and began his practice in Fairfield, where he remained for seven years. He went to Augusta in 1914, and has since been located there as a general practitioner.

In 1915, Dr. Priest was made a member of the Augusta General Hospital medical staff and in 1923, he was named director of the medical service at the hospital. He has served in both capacities since.

For approximately 25 years, Dr. Priest was physician of the Augusta Public Schools and for the past two years has been president of the local board of health.

He has devoted much time to special courses in Obstetrics, Pediatrics, and Internal Medicine.

Dr. Priest is a member of the Kennebec County Medical Association, the Maine Medical Association and the American Medical Association.

Benadryl—Continued from page 129

CONCLUSION

Benadryl is a powerful new chemical compound which possesses anti-allergic activity and has been successfully used for relief of a number of allergic entities. The beneficial effects of the drug may be expected from Benadryl within a few hours after its administration. Its effect is palliative and symptoms tend to recur when the drug is discontinued.

Dryness of the mouth was the most frequent side effect in my small series. Transitory drowsiness may be very alarming at times. Patients should be cautioned with respect to this effect. Its use in asthma has not been very encouraging. I feel its most successful use will be found in Hay Fever, Urticaria, and Vasomotor Rhinitis.

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9. Shaffer, L. W., Carrick, L., and Zackheim, H. S.: Arch. Dermat. & Syph., 52:243, 1945.
10. Parke-Davis Bulletin, 1946.

PROGRAM IN BRIEF
Maine Medical Association
Ninety-Second Annual Session

POLAND SPRING HOUSE

Poland Spring, Maine

SUNDAY, MONDAY AND TUESDAY

June 23, 24, 25, 1946

SUNDAY, JUNE 23, 1946

3.00 P. M.

First Meeting of the House of Delegates

7.00 P. M.

Reunion for members released from Military Service

8.00 P. M.

Dinner

Guest Speaker, Mr. John O'Connell, Editor, "Bangor Daily News," Bangor

MONDAY, June 24, 1946

Morning Session

9.00 A. M.

General Assembly:

President Adam P. Leighton, M. D.,
presiding

Invocation:

Announcements:

Ralf S. Martin, M. D., Chairman,
Scientific Committee

Frederick R. Carter, M. D.,
Secretary

CONFERENCES

9.30 A. M.-12.00 M.

I

MEDICAL

Chairman: James W. Reed, M. D.,
Farmington

SYMPOSIUM—GASTRO-INTESTINAL BLEEDING

ESOPHAGUS

George O. Cummings, M. D., Portland

Discussant, Albert C. Johnson, M. D., Portland

STOMACH

Merrill S. F. Greene, M. D., Lewiston

Discussant, Julius Gottlieb, M. D., Lewiston

LARGE BOWEL

Dexter E. Elsemore, M. D., Dixfield

Discussant, Leon D. Herring, M. D., Winthrop

X-RAY

Jack Spencer, M. D., Portland

Discussant, Forrest B. Ames, M. D., Bangor

II

SURGICAL

Chairman: Stephen A. Cobb, M. D., Sanford

WAR SURGERY

TREATMENT OF BATTLE CASUALTIES IN AN AM-
PHIBIOUS INVASION

Wilbur F. Leighton, M. D., Portland

Discussant, J. Robert Feeley, M. D., Bangor

THORACO ABDOMINAL WOUNDS

Silas A. Coffin, M. D., Bar Harbor

Discussant, Alvin A. Morrison, M. D., Portland

ABDOMINAL PERINEAL WOUNDS

M. Tieche Shelton, M. D., Augusta

Discussant, Edward W. Holland, M. D., Sanford

ANESTHESIOLOGY AND SHOCK

Gilbert Clapperton, M. D., Lewiston

TREATMENT OF BURNS

Eugene P. McManamy, M. D., Portland

Discussant, Louis A. Asali, M. D., Portland

EVALUATION OF THE CONTINUATION OF WAR SURGERY

William V. Cox, M. D., Lewiston

Discussant, Reginald T. Lombard, M. D., South Portland

III

ORTHOPEDICS

Chairman: Milton S. Thompson, M. D., Portland

INTERNAL DERANGEMENTS OF THE KNEE JOINTS

Walter G. Dixon, M. D., Norway

Discussant, Gordon N. Johnson, M. D.,
Houlton

Luncheon

12.30 P. M.

Tables will be reserved for reunions of alumni of
Boston University, Johns Hopkins, Bowdoin,
McGill, Vermont, Tufts, Yale and Harvard
Medical Schools, and members of the Tumor
Clinics

Afternoon Session

2.00-5.00 P. M.

SCIENTIFIC SESSION

1. Surgical Treatment of Hypertension,
Reginald Smithwick, M. D., Boston, Mass.
2. Speaker to be announced

5.00 P. M.

Election of President-elect

5.30 P. M.

Second Meeting of the House of Delegates

Evening Session

7.00 P. M.

Dinner

Guest Speaker, H. Clifford Loos, M. D., of the
Ross-Loos Medical Group Clinic, Los
Angeles, California

TUESDAY, JUNE 25, 1946

Morning Session

Conferences

9.30 A. M.-12.00 M.

I

ANNUAL MEETING OF THE MAINE MEDICO-LEGAL
SOCIETY

Secretary: George L. Pratt, M. D.,
Farmington

II

MEDICAL

Chairman: Eugene H. Drake, M. D., Portland

INFECTIOUS HEPATITIS

Elton R. Blaisdell, M. D., Portland

Discussants:

Harold V. Bickmore, M. D., Portland

Paul C. Marston, M. D., Kezar Falls

THERAPEUTIC PROCEDURES IN CARDIAC DISEASE

Wilfred J. Comeau, M. D., Bangor

Discussants:

Richard S. Hawkes, M. D., Portland

Eugene H. Drake, M. D., Portland

INFECTIOUS MONONUCLEOSIS

Charles W. Steele, M. D., Lewiston

Discussants:

Donald H. Daniels, M. D., Portland

Edward A. Greco, M. D., Portland

III

SURGICAL

Chairman: Eugene E. O'Donnell, M. D.,
Portland

DIAGNOSIS OF CANCER OF THE CERVIX

Theodore C. Bramhall, M. D., Portland

Discussants:

Magnus F. Ridlon, M. D., Bangor

William Holt, M. D., Portland

Jack Spencer, M. D., Portland

Joe Vincent Meigs, M. D., Boston

SMALL BOWEL OBSTRUCTIONS

Edward L. Herlihy, M. D., Bangor

Discussant, Isaac M. Webber, M. D., Port-
land

PROGRESS IN HANDLING SURGICAL DISEASES OF THE
COLON

Edward L. Risley, M. D., Waterville

DEEP THROMBOPHLEBITIS

James M. Parker, M. D., Portland

IV

ORTHOPEDIC

Chairman: Allan Woodcock, M. D., Bangor

EPIPHYSEAL INJURIES

Leo J. McDermott, M. D., Portland

COLLES'S FRACTURE

Thomas A. Martin, M. D., Portland

Luncheon

12.30 P. M.

Afternoon Session

2.00-5.00 P. M.

SCIENTIFIC SESSION

1. PRESIDENT'S ADDRESS

Adam P. Leighton, M. D., Portland

2. STREPTOMYCIN

Chester S. Keefer, M. D., Boston, Mass.

3. WERTHEIM'S HYSTERECTOMY (with colored pho-
tography and moving pictures)

Joe Vincent Meigs, M. D., Boston, Mass.

(OVER)

Evening Session
8.00 P. M.

Annual Dinner
Presentation of Fifty-Year Medals by President
Adam P. Leighton, M. D.
Guest Speaker, **Charles Gordon Heyd, M. D., Past
President of the American Medical Association**

Convention Rates

Poland Spring House
Poland Spring, Maine

The Convention Rates for the 1946 Session are as follows:

Double Room with Twin Beds and Private Bath—
\$11.00 per person per day.
Double Room with Private Bath for Single Occu-
pancy—\$16.00 per day.

Double Room with Twin Beds and Single Room with
Private Bath Between for three people—\$10.00
per person per day.

Two Double Rooms with Twin Beds and Private Bath
Between for four people—\$10.00 per person per
day.

Single Room with Private Bath—\$14.00 per day.

Two Single Rooms with Private Bath Between—
\$12.00 per person per day.

Single or Double Rooms with Twin Beds, Running
Hot and Cold Water—\$9.00 per person per day.

Charge for non-registered guests for meals will be as
follows: Breakfast, \$1.50; Luncheon, \$2.50;
Dinner, \$3.00.

Golf green fees will be \$2.00 per day. Tennis courts
will be available without charge.

All automobiles must be parked in either garage at
\$1.00 per day, or parking space provided at 50c per
day. Employees will be available to park automobiles
for guests.

Poland Spring Water will be served free at all times
to guests of the hotel, and a charge made for Poland
Club Soda and Gingerale.

Make Your Reservations Early

HOSPITAL STAFF MEETINGS

Open to the Profession

CITY	HOSPITAL	DATE
Augusta	Augusta General Hospital	1st Wednesday
Bangor	Eastern Maine General	2nd Tuesday
Bath	Bath Memorial Hospital	1st Tuesday
Belfast	Waldo County	2nd Friday
Boothbay Harbor	St. Andrew's Hospital	4th Tuesday
Caribou	Cary Memorial	1st Wednesday
Damariscotta	Miles Memorial	1st Thursday
Lewiston	Central Maine General St. Mary's General	1st Monday 2nd Monday
Portland	Maine Eye and Ear Infirmary Maine General Mercy	1st Wednesday 2nd Friday 3rd Thursday
Presque Isle	Presque Isle General	1st and 3rd Tuesdays
Rockland	Knox County General	1st Monday
Rumford	Rumford Community	4th Wednesday
Sanford	Goodall Memorial	2nd Monday
Waterville	Sisters Thayer	2nd Tuesday Every Thursday

The above list was compiled from a questionnaire sent out by the Maine Hospital Association. Additions or corrections will be made on notification to the Secretary, Maine Hospital Association, Thayer Hospital, Waterville.



The Journal of the Maine Medical Association

Volume Thirty-seven

Portland, Maine, June, 1946

No. 6

Roentgen Therapy and Trichiniasis

*Report of an unusual case of Trichiniasis treated with apparent success by irradiation with a study of the quality of X-rays used and a review of the subject**

MATTHEW TALMADGE MOOREHEAD, M. D.**

Research Fellow in Surgery, College of Medicine of the University of Vermont

Trichinosis, or trichiniasis, is a disease resulting from the eating of insufficiently cooked meat containing larval forms of a parasitic roundworm known as *Trichinella spiralis* or *Trichina spiralis*. It is not a rare disease but the peculiar complication described here has not been reported elsewhere, and no record of successful treatment by the use of roentgen rays can be found in the literature.

In this instance a patient, late in the course of an undiagnosed, severe, febrile illness, developed a peculiar, sharply circumscribed, tumor-like mass which projected from the right anterior chest wall. This mass was tentatively diagnosed as sarcoma, but it proved to be inflammatory in nature and was found to contain

numerous encysted larvae of *Trichinella spiralis*. The patient's condition for several months following operation became increasingly unsatisfactory until roentgen irradiation was employed when recovery took place promptly.

HISTORICAL

The calcified cysts of *Trichinella spiralis* were first described in the muscle of man by Tiedemann^{1, 2, 3, 4} in Germany in 1822. A decade later, Sir James Paget recognized the parasitic nature of these cysts. In the year 1835, Richard Owen classified the adult worm, giving it the name of *Trichina spiralis*, a name that ultimately had to be changed to *Trichinella spiralis* because of priority in use of the word trichina.¹ Bowditch of Boston first reported human infection in this country in 1842, and Leidy in 1849, demonstrated swine infection here. In 1850, Virchow traced fairly completely the parasite's life history. It was con-

* U. S. Veterans' Facility, Togus, Maine, Department of Roentgenology.

** Thesis submitted to the Faculty of the Graduate School of Medicine of the University of Pennsylvania, toward the requirements for the degree of Master of Science (M.Sc.[Med.]) for graduate work in Radiology.

sidered harmless until 1860, when Zenker found numerous adult worms in the gastric contents of a patient who was believed to have died of typhoid fever. Thomas R. Brown, in 1897, described the eosinophilia usually associated with this disease. In 1909, Herrick and Janeway⁵ demonstrated living, motile, parasitic larvae in the human bloodstream.

PARASITOLOGY

It will be recalled from the study of zoology that tapeworms are flat worms (Platyhelminthes) and that the phylum of round worms (Nemathelminthes) is divided into three classes, only one of which, the Nematoda, is of parasitic importance in man. The Nematoda comprise but four suborders of interest as human parasites, namely, Ascaroidea, Strongyloidea, Filarioidea and Trichinelloidea. The latter suborder, Trichinelloidea, includes two families and two species that infect man: Trichurinae (*Trichuris trichiura*) and the subject of this report Trichinellinae (*Trichinella spiralis*).⁶

Trichinella spiralis is a tiny parasitic roundworm which in the adult stage measures 1.25 mm. to 4.0 mm. in length, the female being larger than the male. During the encysted larval stage, as found in human striated muscle, it is much smaller being just visible to the unaided eye and measuring when uncoiled from 0.6 mm. to 1.0 mm. in length.³ The newly born embryos have a length of 100 microns but a diameter of only six microns⁷ which permits their passage through capillaries. The most important hosts appear to be the pig, the rat and man but as many as twenty-five other species of animals have been found capable of harboring these parasites.⁴

All details of the life history of *Trichinella spiralis* probably are not yet fully understood. It is believed by some investigators that man is not a natural host for this worm because he seems to have little or no immunological resistance to the disease and further, he is an unsuitable medium for the parasite's dissemination since human flesh is rarely consumed by a susceptible animal. The life cycle of *T. spiralis* can be completed within a single species of animal, e.g., from rat to rat or from pig to pig, no intermediary host is necessary.⁷ The individual parasitic cycle ends with the larval en-

cystment in a striated muscle unless that muscle is eaten by another susceptible animal. Rats, particularly around slaughter houses, frequently eat uncooked flesh of various slaughtered mammals and occasionally that of cats, dogs and other rats, while they in turn may be eaten by pigs, but this method of spread seems to be of minor importance. The custom of feeding raw garbage to pigs appears to be chiefly responsible for the present wide dissemination of this disease and for the maintenance of a large permanent animal reservoir.⁸ The eating of raw or insufficiently cooked pork is the usual method of human infection. Ingestion of *T. spiralis* probably does not seriously impair the health of rats and pigs,⁹ but in man it may produce alarming symptoms and even prove fatal. The mortality from this disease has been reported in different outbreaks as varying from 1 to 30 per cent.^{4, 7}

The encysted larvae of *T. spiralis* upon reaching the stomach of a new host are promptly liberated from their cystic capsules by the lytic action of gastric juice and thereupon undergo rapid growth to maturity within the small intestine and proximal colon¹⁰ where they may persist in the adult stage for as long as six weeks.¹ The males, after copulation, soon die^{1, 2} or disappear⁷ but the fertilized females burrow into the mucosa and lymphatics of the small intestine and after about six weeks give birth to great numbers of embryos, as many as 1,500 emerging from a single worm.^{7, 11} The liberated newly born embryos migrate by way of the lymphatics and bloodstream to all parts of the host's body and at this stage may be demonstrated moving freely in the bloodstream⁵ and even in the spinal fluid.⁷ The chief symptoms of early trichinosis are said to be due to these young motile embryos.⁴ Eventually the embryos concentrate or survive chiefly, if not entirely, within the voluntary muscular system^{4, 7} where the degree of infection is greatest in the most active muscles, such as those of the jaw, eye, larynx, ribs and diaphragm.¹² In the living patient the encysted larvae may be demonstrated quite readily by a biopsy taken from a muscular segment near the tendinous insertion of the gastrocnemius or the pectoralis major; at necropsy the diaphragm is a more accessible site and methods of concentration have been devised which utilize this en-

tire muscle for examination. The usual duration of viability of encysted larvae within a living human muscle is probably only a few years, but some have been known to survive as long as 25 years.^{3, 4, 11} Once lodged in the striated muscle of any host the parasite remains permanently encysted there until the muscle is eaten by another susceptible animal. If this event does not occur the parasite either dies in the muscle, often becoming calcified, or perishes with the death of the host. This is a curious and wasteful method of parasitic dissemination, but it has proven very effective.⁷

EPIDEMIOLOGY

The incidence of swine infection as reported in this country seldom exceeds 6 per cent, but rat infection in some districts may reach almost 100 per cent.¹² It was formerly thought that a pig had to eat an infected rat in order to become infectious for man but lately the far greater importance of feeding pigs raw kitchen garbage containing contaminated pork scraps has become well established.¹³ Thorough steaming or cooking of all garbage before it is fed to pigs is effective in controlling this method of spread.¹¹ Curing, pickling or smoking of pork does not kill the parasite, but exposure to a temperature of 55° C. (131° F.) for 15 minutes, or refrigeration at -17.7° C. (0° F.) for six days, is usually effective.¹¹ Governmental inspection of meat is of no practical value in the prevention of trichinosis and has been discontinued.¹³

Human *Trichinella* infection appears to be much more prevalent in the United States than is generally realized.^{4, 6, 13} The incidence, as revealed by necropsies, varies from 3 to 36 per cent.^{4, 14} Probably 16,000,000 people in this country are now infected.⁴ But it would appear from patients' histories that only about half of these has ever shown actual clinical manifestations of the disease.¹⁴ In this connection, however, it should not be overlooked that in the course of a lifetime almost everyone experiences occasional unexplained and quickly forgotten minor gastrointestinal upsets, some of which may well represent undiagnosed, minimal *Trichinella* infections.

It has been said that the prevalence of human trichinosis in any community may be approxi-

mately estimated by examination of local rats, because wherever heavily infected rats are to be found, there human infection also is present.¹¹ This statement may still be generally true but it must be considerably modified in the light of recent knowledge of the greater danger from garbage-fed hogs.^{8, 13} Bear meat (ghirky), smoked dog meat and the flesh of nutria (*Myocastor coypus*)⁸ are some other, although very unusual, sources of human infection. Since many species of animals are susceptible to invasion by this parasite it seems likely that future investigation will disclose sources of human infection that are now entirely unsuspected.

DIAGNOSIS

A positive diagnosis of human trichinosis can best be made by biopsy of a skeletal muscle but this cannot always be done, therefore, other clinical findings are frequently relied upon for a tentative diagnosis. Eosinophilia is often present but it may be absent in severe as well as mild cases.⁴ Occasionally it is possible to demonstrate the living motile larvae in the human bloodstream¹⁵ but this is a laboratory procedure of limited scope and one that requires considerable technical skill. In an early case the adult worms may be seen at times by careful inspection of the fresh feces with a low-power lens, but this too is an examination that usually yields negative results.⁴ Recently dermal and precipitin tests have been developed⁷ and these give promise of considerable diagnostic aid. The intradermal test is said to elicit a positive skin reaction in about 90 per cent of all cases and is of value from the sixth day of clinical symptoms to several years after clinical recovery.⁷

CASE REPORT

A Filipino male, 44 years' of age, was first seen on March 28, 1940, during the eighth week of a severe illness. The family history was irrelevant. The past history revealed no illness of note. His eating habits were not remarkable except an expressed preference for "rare" meats and "hot dogs"; however he denied eating raw pork. The patient had had no serious illness while living in the Philippine Islands and had come to this country as a sailor at the age of 19 years. He resided chiefly along

the North Atlantic seaboard after reaching this country and had been in excellent health until his present sickness. His occupation as a cook necessitated frequent handling of many kinds of meat, and he stated that he had been preparing a large barbecued pig at the time of onset of his present illness, January 30, 1940. The initial symptoms were emesis, colic, diarrhea and prostration, followed after a few hours by fever. The patient became acutely ill rather rapidly and was taken to a local hospital the same day. He remained bedfast and in a seriously ill condition for more than eight weeks. This period of his illness was reportedly characterized by a protracted fever and by intestinal symptoms that in some ways resembled typhoid fever. The results of all laboratory examinations were negative and no diagnosis was established at this time. During the sixth week of his illness a painful local swelling appeared near the right nipple. This swelling was not preceded by injury or other known cause. The patient's temperature following appearance of this lesion continued to be somewhat elevated and he continued to lose weight and strength.

He was admitted to the Hospital of The Veterans' Administration Facility, Togus, Maine, on March 28, 1940. Physical examination at that time revealed an emaciated, nervous, apprehensive, dark-skinned male, aged about 44 years, whose outstanding physical abnormality was a firm, rounded, elevated, sharply circumscribed tumor mass, 5 by 6 cm.

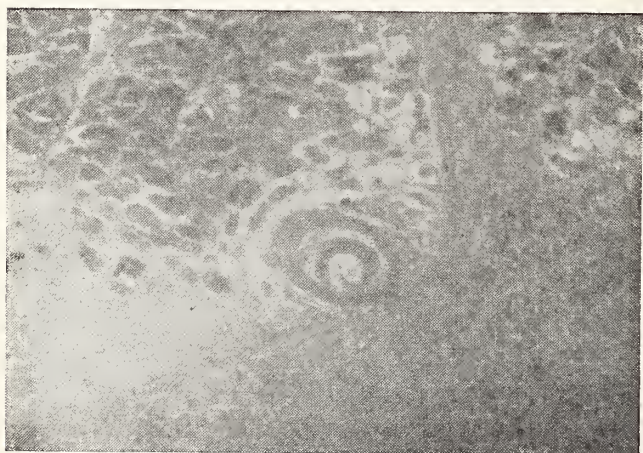


Fig. 1b. Microphotograph of tissue-section made from a "tumor" mass removed from the patient's chest wall. An encysted form of *T. spiralis* is seen within a striated muscle (pectoralis major).



Fig. 1c. A microphotograph of tissue-section made from a "tumor" mass removed from the patient's chest wall showing heavy lymphocytic infiltration adjacent to the lesions of the pectoralis major muscle shown in Fig. 1b. *T. spiralis* are not visible in this field but were present nearby.



Fig. 2a. Photograph of patient (P. G.) made at completion of X-ray therapy (November 12, 1940). Drainage from the wound and sinus tracts had largely ceased at that time and the patient's general condition was much improved. No form of therapy excepting X-radiation had been used during this period. (Unfortunately no earlier photographs of the patient are available).

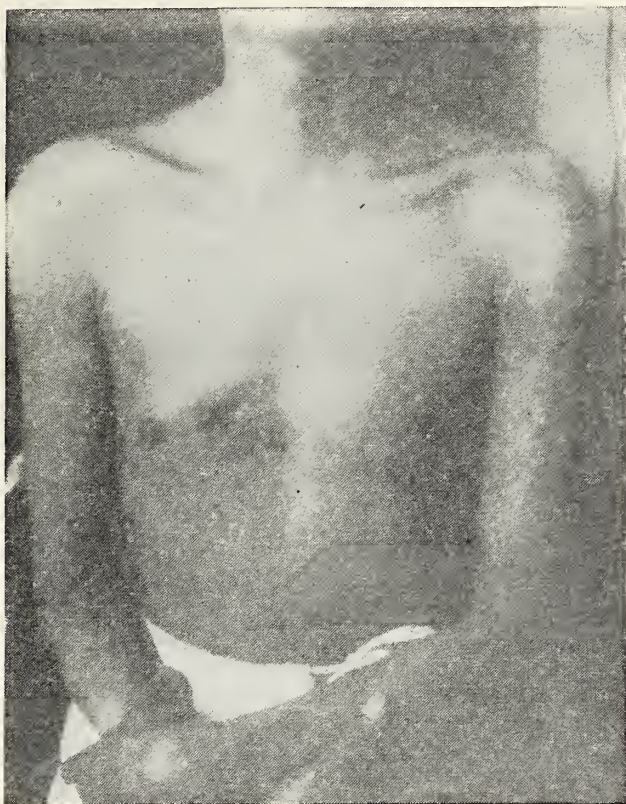


Fig. 2b. A close-up view of the patient's chest made at completion of X-ray therapy (November 12, 1940).

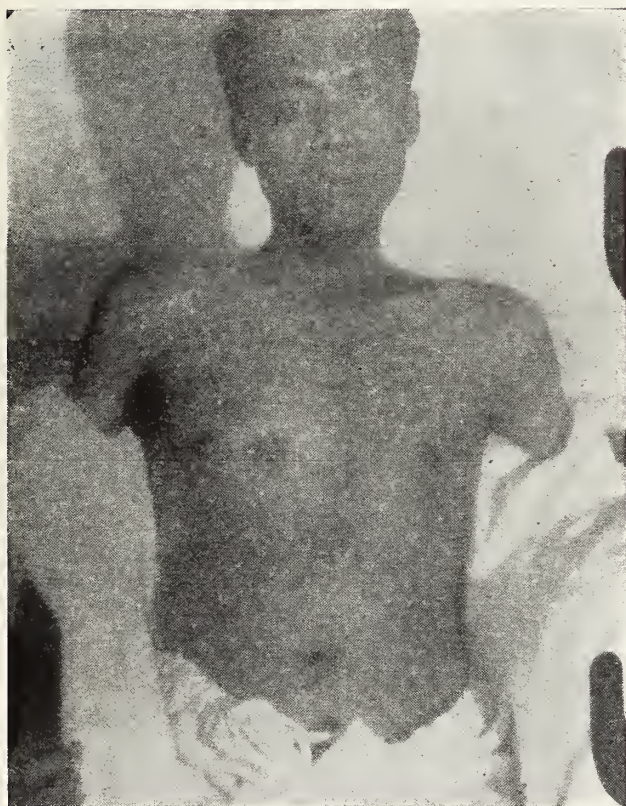


Fig. 2c. The same patient ten days later. The wound has now healed completely and for the first time since his operation six months previously.

in size, located in the right anterior thoracic wall between the nipple and the midline. This mass extended well into the pectoralis major muscle and appeared to be fixed to the underlying cartilage and bone but did not involve the skin. There was no palpable fluctuation and no localized redness or discoloration of the overlying skin. Examination of other parts of the body revealed no induration or tumor mass of any kind. The oral temperature was 38.8°C . (102°F .). The systolic blood pressure was 96 mm. of mercury, the diastolic 62 mm. Erythrocytes in the peripheral bloodstream numbered 5,444,000 per cubic millimeter; the percentage of hemoglobin was 75, as determined by the method of Tallqvist. Leucocytes numbered 5,900 per cubic millimeter, 44 per cent of which were neutrophilic polymorphonuclears, 49 per cent lymphocytes, 5 per cent large mononuclears and but 2 per cent eosinophiles. Precipitation and complement fixation tests for syphilis were found to be negative. Examination of the urine disclosed no abnormality of note. A roentgenogram of the chest, made in postero-anterior projection, revealed no pathology of lungs or bone. A tentative diagnosis of sarcoma was made.

After six weeks of rest and symptomatic treatment the extra-thoracic tumor mass had increased somewhat in size and the patient's general condition had become so unsatisfactory that a decision to operate was reached. On May 18, 1940, through a horizontal skin-incision, an irregular unencapsulated, soft, friable, highly vascular, mass of tissue measuring 3 by



Fig. 3. X-ray photographs showing the result of a "pinhole parallelax" experiment intended to depict the exact size of the focal spot of the X-ray tube used here.

4 by 5 cm. was removed from the region of the right pectoralis major muscle. Slight extension of this process intercostally between the third, fourth and fifth ribs was present but no evidence of bone involvement. A post-operative diagnosis of sarcoma was again made but subsequent microscopic examination revealed inflammatory tissue and the presence of numerous encysted larvae of *Trichinellae spiralis*. The pathologist's report was in part as follows:

"This specimen consists largely of striated muscle and connective tissue. In certain areas there is heavy infiltration by lymphocytes and plasma cells with a few scattered eosinophilic and neutrophilic polymorphonuclear leucocytes. The remarkable feature is the presence, at many points, of large, round, cyst-like bodies which contain within their cystic shells, coiled, worm-like structures that have the typical appearance of larval *Trichinellae spiralis*. These cysts are numerous and are located chiefly within the striated muscle. Approximately three such cysts can be identified in each tissue slide examined. There is no evidence of neoplasia."¹⁶

This diagnosis was supported by each of several pathologists consulted.

The patient's immediate postoperative convalescence was fairly satisfactory and was so reported elsewhere,¹⁶ but soon thereafter discouraging complications developed. A portion of the operative incision failed to heal completely and after a few weeks was transformed into an area of suppuration with multiple sinuses and severe induration. Discharge of yellowish gray pus became considerable, and repeated examination by cultural and staining methods and by guinea pig inoculation failed to reveal a specific organism. Local induration of the thoracic cage gradually extended through the right pectoral muscles to the right shoulder causing severe limitation of motion at the shoulder joint.

During the five months following operation the patient's general condition became gradually less satisfactory despite numerous therapeutic measures such as salicylates, iodides, local antiseptics and physiotherapy. None of these agents appeared to be of benefit to the patient. At the end of this period, emaciation and cachexia had become so severe that the prognosis seemed hopeless. On October 26,

1940, a roentgenogram of the chest in lateral projection disclosed evidence of extension of the inflammatory process to the visceral aspect of the anterior thoracic wall. The involved area was of considerable size but was of less than 1 centimeter in depth and did not appear to involve lung tissue. The hilum shadows were not enlarged. There was no palpable lymphadenopathy and no demonstrable bone involvement but the general appearance of the patient at this time had become so cachectic as to at once suggest the possibility of advanced malignancy.

On October 31, 1940, roentgen irradiation of the right anterior chest wall was cautiously begun with a dose of 70 roentgens. According to the patient's statements the local pain which had been a distressing feature, disappeared within 24 hours. Drainage of pus from the sinuses increased somewhat at first but after 48 hours diminished rapidly. Roentgen treatments were repeated at intervals of approximately three days as indicated by the accompanying chart (Table I) until a total dosage of 496 roentgens, as measured in air, had been given. Remarkable improvement in the patient's condition, both local and general, was apparent on completion of this treatment. Drainage had ceased and the sinuses were practically healed (Fig. 2). The patient's weight and strength increased progressively thereafter until December 24, 1940, when his condition had become so satisfactory that he was permitted a few days' visit to his home. This had no ill effect on his health and on January 10, 1940, he was discharged from the hospital in very good physical condition and apparently cured. His total period of hospitalization had been nearly one year and during a considerable part of that time he had been seriously, if not critically ill. When last heard from by letter on February 15, 1943, the patient was still in apparently good health.

This recovery of a trichinous patient following roentgen irradiation is encouraging, but of course does not establish X-rays as the curative factor. Further study and analyses of large numbers of similar cases would be necessary in order to judge critically the effectiveness of this type of therapy. At the present time the rarity of this manifestation of trichiniasis makes such a study impracticable.

ROENTGEN TREATMENTS AND FACTORS

Date	Duration of treatments in minutes	Kilovoltage settings	Size of field in cm.	Milli- amperage	Filter in mm. of aluminum	Roentgens per minute	Roentgens per treatment	Total Roentgens	Target- skin distance	H. V. L. in mm. Al	Minimum wave length in Angstroms	Effective wave length in Angstroms
10/31/40	15	80	10 x 15	4	1.0	4.68	70	70	50.9 cm. (20 in.)	1.80	0.154*	0.432
11/3/40	15	80	10 x 15	4	0.5	6.77	102	172	50.9 cm. (20 in.)	1.25	0.154*	0.500
11/6/40	15	80	10 x 15	4	0.5	6.77	102	274	50.9 cm. (20 in.)	1.25	0.154*	0.500
11/9/40	15	80	10 x 15	4	0.5	6.77	102	376	50.9 cm.	1.25	0.154*	0.500
11/12/40	5	157 (140)	15 x 15	10	2.0	24	120	496	50 cm.	5.45 Al .217 Cu	(.088)* 0.0786	0.273 Al 0.278 Cu

TABLE NO. I

* The values for minimum wave lengths were based upon the erroneous assumption that 80 and 140 represented peak kilovoltages whereas later it was demonstrated that these figures are much closer to constant potential equivalents as is explained more fully in the body of the thesis.

X-RAY FACTORS

The total amount of X-radiation given this patient was approximately 500 roentgens, as measured in air. Two different machines were used. The quality of rays emitted by the machines, used here, during the course of treatments was as follows: In the first four treatments the "peak" kilovoltage was approximately 80; this beam proved to have an effective wave length of about 0.5 Angstrom and a minimum wave length of 0.154 Angstrom. The fifth and final treatment was given at a peak kilovoltage of approximately 140, and provided an effective wave length of about 0.27 Angstrom and a minimum wave length of 0.088 Angstrom.

SUMMARY

A peculiar complication of human trichiniasis has been observed and treated with apparent success by the use of roentgen rays.

The manifestation that seemed unusual in this instance was the appearance of a sizeable extra-thoracic tumor mass late in the course of an undiagnosed severe infection by *T. spiralis*. This mass had the external appearance of sarcoma but at operation proved to be trichinous. After operation a severe suppurative condition of the chest wall developed at the operative site. This failed to heal despite months of varied treatment, and eventually became a serious threat to the patient's life. Complete recovery took place with surprising rapidity following the use of roentgen therapy.

This appears to be the first report of a tumor-like trichinous lesion that has appeared in the literature and also the first instance of the successful use of X-rays in the treatment of trichiniasis.

CONCLUSION

Roentgen therapy is by no means advocated as a specific in the treatment of trichiniasis, on the contrary it is probably of no value in the

usual case. It is, however, suggested as a type of therapy that deserves further consideration, particularly in the treatment of certain complications of this widespread disease.

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Attention should be called to the necessity of taking a chest roentgenogram of every patient with tuberculosis of the cervical lymph nodes. This should be done routinely, even in the absence of pulmonary symptoms. The chest examination should be repeated at least twice a

year and sooner, if indicated. It is not unusual for active pulmonary tuberculosis to appear one or two years after the development of tuberculosis in the cervical lymph nodes.—Sumner S. Cohen, M. D., *Journal-Lancet*, April, 1945.

*Importance of Anaesthesia in Thoracic Work**

MAURICE E. LORD, M. D., Skowhegan, Maine

The subject, "Anæsthesia," is rather prosaic to the majority of both the laity and to the medical profession as a whole, but it is quite a necessary adjunct to the work of the surgeon. I am not going to go into the scientific part of anæsthesia, but instead, will tell you something of its evolution in relation to chest surgery here.

I have been associated with chest surgery anæsthesia since about 1925 or '26 at this institution. If I remember rightly, we first started with an old McKesson gas machine and gave the patients a mixture of gas and ether. The surgery at that time was not as elaborate nor as extensive in its scope as that done at the present time.

With this type of anæsthesia, the patient got along fairly well, but they seemed to experience more or less trouble postoperatively. There was a long period before the cough reflex returned. There was nausea and vomiting. Convalescence before further surgery could be attempted was extended. It was decided that this combination of ether and nitrous oxide was irritating to the diseased lung and more likely to cause spread of the disease.

After some time, it was decided to give gas oxygen alone with no ether. This type of anæsthesia was tried, and used with some degree of success over a period of two or three years. This anæsthesia was hard to administer successfully to patients with diseased lungs because, inasmuch as the tidal air was reduced and a greater amount of anæsthetic gas required, there was always the danger of anoxemia with its attendant symptoms — cerebral edema, etc. Also, the fact that no patient under this form of anæsthesia can be thoroughly relaxed, there was the hazard of shock with lowered blood pressure, rapid pulse, pallor, and perspiring. This form of anæsthesia was used always with fear and trembling, and but for the use of post-op oxygen tents, the mortality rates would have been much greater.

Around 1929 and '30, Dr. Watters was experimenting on a new gas, and after a few years introduced cyclopropane. In 1932 or '33, the Lahey Clinic was using this gas on chest cases, and from all reports, this seemed to be the ideal anæsthetic for chest surgery.

1st.—It was non-irritating.

2nd.—It was used with large quantities of oxygen which prevented anoxemia.

3rd.—The patient could be anæsthetized rapidly.

4th.—The cough reflex returned shortly after the gas was stopped.

5th.—Deep anæsthesia could be secured, therefore, less shock.

6th.—There was a tendency for the blood pressure to rise instead of fall.

7th.—The surgeon could do a larger or more extensive surgical operation without fear of injuring the patient.

8th.—There was transient or no nausea and vomiting.

9th.—Convalescence was much more rapid.

10th.—It caused no injury to liver, kidney, heart, etc.

In 1935, we adopted cyclopropane gas anæsthesia and have been using it up to this time. I believe we were the first hospital in Maine to use this gas.

Many other types of anæsthesia have been suggested and tried, but all have been discarded for various reasons, and I am of the opinion that no better type of anæsthesia could be used than cyclopropane gas for chest surgery.

In order to utilize this new gas, a new outfit had to be secured as the McKesson machine did not meet the requirements, and we had some difficulty in getting the State to consent to such an innovation. However, we finally got a Cornell gas machine and are still using it.

Anæsthesia in chest surgery is somewhat different in its management than other surgical cases. The patient is lying on the side of the chest where the greater part of respiration is

* Read at a joint meeting of the Kennebec and Somerset County Medical Associations, held at the Central Maine Sanatorium, Fairfield, Maine, April 18, 1946.

carried on. The diseased side of the chest is being collapsed, and for that reason, gauging the depth of anæsthesia is sometimes difficult. This is especially true if there happens to be a pneumothorax on the opposite side, or as sometimes occurs, a thorocoplasty has already been done on the contralateral chest, for then the margin of anæsthesia is so small and the effect of the gas so rapid, that it is very difficult to keep a patient at a steady complete anæsthesia. To emphasize this fact, I quote from Bronchospirometric studies in collapse therapy read recently.

"In thirteen patients with pulmonary tuberculosis, the functional examination of the lungs was made before and after institution of pneumothorax. The second examination was made after 4-6 insufflations to avoid any influence on the results of a favorable or unfavorable development of the pulmonary lesions. The results so obtained are true expressions of the action of the pneumothorax. In each examination, vital capacity, complimentary air, supplemental air, respiratory volume, oxygen consumption, and the equivalent of ventilation were determined. A comparative study was made of the relative values of these findings in both hemithoraces. An analysis of the observations shows that in the collapsed lung, the bronchospirometric values diminish constantly. The reduction of the vital capacity is more accentuated than that of the respiratory volume. The decrease of the vital capacity is mostly due to the reduction of reserve air, but also to the diminished complimentary air. The average of this reduction was 15.2% for the vital capacity; 12.4% for the complimentary air; 19.8% for the supplemental air; and 12.1% for the respiratory volume. These reductions are more accentuated in pneumothorax with atelectatic lung. In certain cases, the pulmonary ventilation

diminishes so much that no graphic registration of the existence of supplemental and complimentary air can be obtained. The oxygen consumption also shows appreciable reduction. The average for all cases was 11.6%."

The anæsthetist must closely watch the blood pressure, pulse, and respiration at frequent intervals throughout the operation, and if necessary, institute means of correction without causing undue apprehension on the part of the surgeon. He must know when and what kind of steps are necessary to preserve the welfare of the patient at all times.

The anæsthetist is the least conspicuous in any surgical team, and this thought led me to compose a few verses to illustrate that fact.

There was silence in the surgery,
An Op was being done..
The surgeon's face was wet with sweat,
And he snapped at everyone.

His helpers sopping up the gore
Were clamping off and tying.
Their foreheads too were wet with dew
So avid were they trying.

The nurse who'd scrubbed was handing things
As fast as she was able.
The nurse who counted sponges
Was dodging round the table.

In fact, they all were working hard
To make this Op go through,
While the anæsthetist was sitting
With nothing much to do.

So while the others struggle on,
All eagerly they strive,
The anæsthetist does nothing
But keep the case alive.

There is no more important function of government than the protection of the public health.—Mayor Theodore R. McKeldin, Balt., Md.

Natural or racial immunity to tuberculosis has long been a controversial question. How-

ever, it is generally accepted at present that resistance to the disease by Indians is less than that shown by whites when judged by the standards of morbidity and mortality rates and the X-ray appearance of lesions.—J. R. McGibony, M. D., and A. W. Dahlstrom, M. D., *Am. Rev. Tbc.*, Aug., 1945.

The President's Page

The time for our Annual Meeting at Poland Spring is not far off and as our first real post-war activity, it bids fair to be a successful, well attended scientific and social event. I hope that all who plan to attend, will have made their reservations for rooms, that there may be no disappointments or lack of accommodations. Much has been planned for your enjoyment. The program is most complete and has been well arranged. The medical and surgical exhibits are more numerous than in any previous year.

This is a scientific and business meeting. Golf and extra-mural interests should not be allowed to militate against attendance at these several conventions. Make it a point to be present and to take part in the important discussions. This year, more than ever before, there will be decisions to be made, decidedly far reaching and having much to do with the future of medicine in Maine.

We must consider the various Prepayment Plans for Medical Care and make a start. Just what further action do you desire relative to the Veterans' Administration contract? The proposed re-birth of the Maine Medical School, sponsored by the University of Maine needs your support. The necessity for an Executive Secretary,—a whole time official, to steer this organization, is axiomatic. A vote to increase the dues should be unanimous, because we just cannot go ahead and lead the parade, if parsimony and niggardliness prevails.

May I take this opportunity to thank, in advance, all those County Society officials and committee members who have worked so diligently and whole-heartedly to aid me and you this past year. Renewed interest, increased attendance and obvious understanding on the part of the County Society members, assures success in all our undertakings. Self-preservation is at stake and the coming year will bring greater problems to our door. Let's be ready,—just this once, and realize that with our potentialities, there is nothing that we cannot surmount, when adverse factions would attempt to obstruct, and bother us!

To Dr. John Piper, the incoming President, my best wishes. He will be an excellent leader and let us get behind him and work together as never before.

ADAM P. LEIGHTON, M. D.,
President, Maine Medical Association.

Editorials

The Annual Session of the Maine Medical Association

As the time draws near for the annual session of the Maine Medical Association it becomes increasingly evident that it will be one of the largest meetings in the history of the Association. Interest is keen from members of the Association, and from the firms making up the Commercial Exhibit.

The program is published on pages 163-166. It provides something of interest to every member from the First Meeting of the House of Delegates scheduled for 3.00 P. M., on Sunday, June 23rd, to the annual banquet, Tuesday evening, June 25th.

Our President, Dr. Leighton, in his President's Page, and at County Society meetings, has repeatedly stressed the importance of issues facing the Association which will be brought up for discussion at the meetings of the House of Delegates, the Legislative body of the Association. Also, by action of the Council, a letter has been mailed to each member of the Association relative to Pre-payment Medical Service Plans, the question of approving the opening of a State of Maine Medical School, and the suggested increase in dues. And before the meeting a "résumé of the proceedings towards a Medical School of Maine" will be sent to each member. Members who are not delegates are invited to attend these meetings and take part in the discussion, though not entitled to vote.

The reunion for members released from military service, to be held Sunday evening, June 23rd, is an affair you will all want to attend. According to the Association records this group now numbers one hundred and fifty.

The Conferences and Scientific Sessions cover all phases of medicine, and have been carefully planned in order that some phase of the program will be of interest to every member.

In accordance with the By-Laws of the Asso-

ciation the election of the President-elect will be by direct ballot in general assembly at the close of the first general afternoon session, Monday, June 24th, at 5.00 P. M.

H. Clifford Loos, M. D., of the Ross-Loos Medical Group Clinic, Los Angeles, California, will speak on *Prepaid Medical Group Practice*, Monday evening, and Charles Gordon Heyd, M. D., a Past President of the American Medical Association, will speak on *The Future of Medicine* at the annual banquet, Tuesday evening, subjects of particular interest to every member of the medical profession.

A feature of the annual banquet will be the presentation of the Association's Fifty-Year Medals to the members listed on page 166, by the President, Dr. Leighton, and a sixty-year bar to Dr. George A. Coombs, of Waldoboro.

The annual meeting of the Maine Medico-Legal Society will take place Tuesday morning, June 25th, at 9.30 o'clock. The program for this meeting to be found on page 165 speaks for itself.

Twenty-eight of the leading pharmaceutical and surgical supply companies will make up the Commercial Exhibit; the largest in the history of the Association. Representatives for these firms will be at their respective booths to greet you. I can't stress too strongly the importance of these exhibits to each of you, and to the Association as a whole. Visit them and by so doing express your appreciation for their support of the Association.

If you haven't already made your reservation—do it today. Convention Rates are published on page 166, and reservations should be made direct with the hotel.

The Association registration booth will be in the Lobby of the Poland Spring House. Register and receive your badge on arrival.

Present Standard Penicillin Treatment Method for Syphilis

Research Group Finds That Commercial Penicillin Is Not Single Substance But Mixture of Several

Because of varied changes in penicillin potency, the Committee on Medical Research of the Office of Scientific Research and Development and the U. S. Public Health Service sponsored a nation-wide study and now offer a standardized method for the drug's use in the treatment of syphilis.

In a joint statement in the May 25 issue of *The Journal of the American Medical Association*, the two groups state that penicillin as it is commercially supplied is not a single substance but a mixture of several.

"At least four, and possibly other, fractions of penicillin have been identified, called in this country penicillins G, X, F and K. The relative quantities of each of these fractions present in commercial penicillin has varied much from time to time and to an unknown extent in the industry as a whole as between different manufacturers or even at different times from the same manufacturer."

Research has shown that the amount of penicillin K contained in commercial penicillin has an effect on the relative usefulness of the drug for syphilis treatment. Recently this fraction has been found in large amounts in the commercially produced drug. Its ineffectiveness is apparently due to the fact that, unlike penicillins G, X and F, it is rapidly destroyed in the body.

In conclusion the committee reports that the "changing character of commercial penicillin is reflected in the fact that the results of penicillin treatment of early syphilis have been less satisfactory since May, 1944, than prior to that date [when the proportion of impurities was higher and the amount of penicillin K lower]."

Investigators have noted that the penicillin that was originally available had an approximate potency of 200 units per milligram which has gradually been increased by the elimination of impurities to the present level of 900-1,400 units per milligram. However, they have also noted that a 15-day treatment with 2,400,000 units of this penicillin gave less satisfactory results than the previous treatment with 1,200,000 units in seven and one-half days.

As a result of their study the authors of this report have made certain recommendations to assure adequate treatment of syphilis with penicillin. The article contains the following suggestions for the medical profession:

Around-the-clock injections should be given into the muscles every two to three hours for a minimum of seven and one-half days.

Patients with primary syphilis should receive not less than 3,600,000 units of penicillin while those with early secondary syphilis should receive not less than 5,400,000 units.

In case of relapse the patient should receive injections of mapharsen, arsenic or bismuth in addition to penicillin.

Under no circumstances should penicillin in its present available form be administered by mouth for the treatment of syphilis.

In treating neurosyphilis, penicillin can be advantageously combined with fever therapy.

The committee further reports that the syphilis treatment problem is receiving "intensive study in a number of cooperating institutions. The penicillin manufacturers are likewise aware of the situation, are cooperating in the study and are taking practical steps in production to correct the identifiable difficulties."

Great progress has been made in control of tuberculosis; equally obviously, much remains to be done. It may be said with fairness that no locality or state of the Federal Government

has ever conducted an even reasonably adequate program for the control of the disease.—Harry S. Mustard, M. D., Government in Public Health, The Commonwealth Fund, 1945.

COUNTY SOCIETIES

Androscoggin

President, Romeo A. Beliveau, M. D., Lewiston
Secretary, Wedgwood P. Webber, M. D., Lewiston

Aroostook

President, Clyde I. Swett, M. D., Island Falls
Secretary, Thomas G. Harvey, M. D., Fort Fairfield

Cumberland

President, Elton R. Blaisdell, M. D., Portland
Secretary, Joseph E. Porter, M. D., Portland

Franklin

President, Harry Brinkman, M. D., Farmington
Secretary, James W. Reed, M. D., Farmington

Hancock

President, Raymond E. Weymouth, M. D., Bar Harbor
Secretary, James H. Crowe, M. D., Ellsworth

Kennebec

President, Arch H. Morrell, M. D., Augusta
Secretary, M. Tieche Shelton, M. D., Augusta

Knox

President, Howard L. Apollonio, M. D., Rockland
Secretary, Freeman F. Brown, Jr., M. D., Rockland

Lincoln-Sagadahoc

President, Francis A. Winchenbach, M. D., Bath
Secretary, Virginia C. Hamilton, M. D., Bath

Oxford

President, Harold W. Stanwood, M. D., Rumford
Secretary, J. S. Sturtevant, M. D., Dixfield

Penobscot

President, George B. Weatherbee, M. D.,
Hampden Highlands
Secretary, Forrest B. Ames, M. D., Bangor

Piscataquis

President, Ralph C. Stuart, M. D., Guilford
Secretary, Norman H. Nickerson, M. D., Greenville

Somerset

President, Richard P. Laney, M. D., Skowhegan
Secretary, Maurice E. Lord, M. D., Skowhegan

Waldo

President, Carl H. Stevens, M. D., Belfast
Secretary, R. L. Torrey, M. D., Searsport

Washington

President, John F. Hanson, M. D., Machias
Secretary, John Young, M. D., Jonesport

York

President, Carl H. Richards, M. D., Alfred
Secretary, C. W. Kinghorn, M. D., Kittery

County Society Notes

Cumberland

A regular meeting of the Cumberland County Medical Society was held at the Falmouth Hotel on April 26, 1946. The meeting was called to order at 8.00 P. M. by Dr. Elton R. Blaisdell, President. Replies were read from the five Senators and Representatives from Maine, in response to a communication sent to them by the secretary of this society expressing the feeling of the society toward Bill S 1606, the so-called Wagner-Murray-Dingell Bill. A communication from the Western District of the Maine State Nurses' Association requesting the coöperation of the Cumberland County Medical Society in establishing a Nurses' Central Professional Registry in Portland was read. The President appointed a committee to investigate the Registry and report on it at the next meeting. Dr. George A. Tibbetts reported on a meeting which his committee has had with the representatives of Sagamore Village concerning the feasibility of physicians staffing clinics at Sagamore Village, and it was voted that the secretary of the society canvass its members in order to have a list of members registered at the Federal Office at Sagamore Village who will be willing to respond to calls from there. Dr. Thomas A. Foster suggested that the delegates to the Maine Medical Association be instructed relative to the feeling of the society towards a Prepaid Medical Service Plan, so that they could be better prepared to vote on this subject at the meeting of the House of Delegates of the Maine Medical Association in June. Eight Portland physicians were unanimously elected to membership: Drs. Franklin F. Ferguson, Charles R. Geer, George I. Geer, Jr., David K. Lovely, George F. Maltby, Donald F. Marshall, Albert W. Moulton, Jr., and Max E. Witte. Resolutions on the death of Dr. E. Eugene Holt, Jr., were read by Dr. Franklin A. Ferguson. The society voted unanimously to spread a report of the resolutions on the record, and to send a copy to his widow.

The principal speaker of the evening was Dr. Dwight E. Harken, of Boston, recently of the United States Army, and in charge of thoracic surgery in the European Theatre of Operations. Dr. Harken gave a most interesting paper on *Surgery of the Heart and Lungs*. The first portion of the paper dealt with the treatment of acute empyema. He stressed first, early adequate drainage, and the use of lipiodol, in order to determine the extent of the infection within the chest. Secondly, relatively rapid obliteration of the empyema cavity, and suggested that this emptying of the cavity be calibrated, and should decrease on an average of 100 c.c. per week. Thirdly, he stressed the importance of specific remedial exercises as a further method of reducing the size of the cavity. The second portion of his presentation consisted of a moving picture in color which demonstrated the removal of foreign bodies from the heart. Of 134 cases operated on, foreign bodies were removed from the hearts of all, and no fatalities followed. Even though some of the cases with foreign bodies are in apparent good health, Dr. Harken listed the following reasons for removal of the foreign body fragments from the heart: (1) To prevent embolism. (2) To reduce the danger of bacterial endocarditis. (3) To prevent recurrent pericardial effusion. (4) To diminish the incidence of rupture or herniation.

Dinner was served at the Falmouth Hotel preceding the business meeting and scientific session, and at 5.00 P. M. a most interesting group of cases were presented at a Clinic at the Maine General Hospital.

JOSEPH E. PORTER, M. D.,
Secretary.

Hancock

A regular meeting of the Hancock County Medical Society was held at the Hancock House, Ellsworth, on Wednesday evening, May 8th, at 6.30 P. M.

Herbert T. Wilbur, Jr., M. D., of Southwest Harbor, was elected to membership.

It was voted to have a summer meeting in Bar Harbor.

Drs. Philip L. Gray, S. A. Coffin, Dwight Cameron, Herbert T. Wilbur, M. A. Torrey, and Raymond E. Weymouth, were designated to act as a liaison committee between the society and the Trustees of the proposed new hospital in Ellsworth.

Joseph Memmelaar, M. D., of Bangor, spoke to the society on *Office Urology*.

J. H. CROWE, M. D.,
Secretary.

Penobscot

The Penobscot County Medical Association held its regular monthly meeting at Bangor on Tuesday, May 21, 1946.

From 2.00 to 5.00 P. M., a clinic was held at the Eastern Maine General Hospital at which the following subjects were presented:

Prenatal Care—Dr. Clarence Emery.

Interesting X-ray Films—Dr. Forrest B. Ames.

Eye-ground Changes in Hypertensive Heart Disease—Dr. Jay K. Osler.

Industrial Surgery—Dr. H. C. Bundy.

Low Back Pain, Clinic and Cases—Dr. Allan Woodcock.

At 6.30 P. M., a dinner was held at the Bangor House.

Following the dinner a business meeting was held. Two new members were elected: Alice J. Shubert, M. D., Bangor; and Richard C. Wadsworth, M. D., Bangor.

A County Committee on Tuberculosis was appointed to act in conjunction with the State Committee. Members appointed: Drs. A. W. Fellows, J. J. Pearson, and W. R. Gumprecht.

The speaker of the evening was H. Edward MacMahon, M. D., Professor of Pathology at Tufts Col-

lege Medical School, Boston. The subject of the address was *The Romance and Realism of Pathology*.

Attendance, 57.

FORREST B. AMES, M. D.,
Secretary.

Washington

The Washington County Medical Society held a meeting at the St. Croix Hotel in Calais, on Thursday evening, May 23, 1946, at 6.30 P. M.

The meeting was called to order by W. N. Miner, M. D., acting president of the Society. The so-called Socialized Medicine bills were discussed, together with the Blue Cross and the Blue Shield.

Many interesting cases were presented by the members of the Society, each case a diagnostic problem.

There were eight members and one guest present.

JOHN YOUNG, M. D.,
Secretary.

New Members

Cumberland

George H. Derry, Jr., M. D., Portland, Maine.

Franklin F. Ferguson, M. D., Portland, Maine.

Charles R. Geer, M. D., Portland, Maine.

George I. Geer, Jr., M. D., Portland, Maine.

Richard J. Goduti, M. D., Portland, Maine.

Robert V. Lorimer, M. D., Portland, Maine.

David K. Lovely, M. D., Portland, Maine.

George F. Maltby, M. D., Portland, Maine.

Donald F. Marshall, M. D., Portland, Maine.

Albert W. Moulton, Jr., M. D., Portland, Maine.

Arthur A. Nichols, M. D., Portland, Maine.

Max E. Witte, M. D., Portland, Maine.

Hancock

Herbert T. Wilbur, Jr., M. D., Southwest Harbor, Maine.

Penobscot

Alice J. Shubert, M. D., Bangor, Maine.

Richard C. Wadsworth, M. D., Bangor, Maine.

Deceased

Cumberland County Medical Society:

Benjamin B. Foster, M. D., Portland, Maine
Died May 8, 1946

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News and Notices

Frank E. Leslie, M. D., of Andover, Maine, has received an appointment as Mental Hygiene Advisor to the Board of Control of Iowa State Institutions, effective June 1st, 1946.

Dr. Leslie was on duty in Government Mental Hospitals for over 25 years and was retired from Federal Service in 1943.

When not on special assignments he spends the summer months in Maine, going to Florida each winter.

Maurice A. Priest, M. D., of Augusta, Maine, who had planned to retire May 30th, has accepted a post as District Health Officer with the State Department of Health and Welfare. His appointment became effective June 3rd.

Francis A. Winchenbach, M. D., of Bath, Maine, veteran of World War II, has been appointed Medical Director of the Bath Memorial Hospital.

Openings for General Practitioners in Maine

Franklin County. Strong

The Town of Strong is very much in need of a doctor. It is a prosperous community with three mills employing approximately 800 people. Write: Mr. T. R. Hodgkins, President, Forster Mfg. Co., Inc., Strong, Maine.

Hancock County. Stonington (714)

Need a general practitioner and surgical doctor badly in this town. Write: Mrs. B. Lake Noyes, Box 297, Stonington, Maine.

Penobscot County. Newport (1370)

Newport and surrounding territory need young doctor. Dr. George Higgins is not in good health and will welcome and cooperate with a newcomer. Hospital at either Bangor or Waterville. Newport situated on Lake Sebasticook, and people have more or less reserved suitable quarters for doctor and his family, and space suited for a doctor's office. Write: Mr. Paul V. Witham, Office of the Selectmen, Newport, Maine.

ated on Lake Sebasticook, and people have more or less reserved suitable quarters for doctor and his family, and space suited for a doctor's office. Write: Mr. Paul V. Witham, Office of the Selectmen, Newport, Maine.

Waldo County. Islesboro (200)

Need physician. Salary paid by the town. Former doctor resigned because of ill health.

York County. Cornish (528)

Want young doctor to take over practice of doctor who wishes to retire. Town is small with many small surrounding towns. Have clothing factory, schools, stores, church, and fine water system. Thirty miles from Portland, and access to good hospitals. Can assure a good practice and home to right man. Write: Samuel G. Sawyer, Main Street, Cornish, Maine.

For further information regarding these areas, please write to Frederick R. Carter, M. D., Secretary, Maine Medical Association, 142 High Street, Portland, Maine.

United States Chapter, International College of Surgeons, Meets in Detroit

The International College of Surgeons, United States Chapter, will hold its Eleventh Annual Assembly and Convocation in Detroit, Monday, Tuesday, Wednesday, October 21-22-23, 1946.

Surgical clinics in Detroit hospitals will feature the first morning of the Assembly. Thereafter all the meetings, the Convocation, and the Exhibition will be held in the Masonic Temple, a splendid building affording every convenience. The Detroit Statler and the Book-Cadillac will be hotel headquarters.

State of Maine Board of Registration of Medicine

The next examinations will be held at Augusta, Maine, July 2 and 3, 1946. Apply to Adam P. Leighton, M. D., Secretary, 192 State Street, Portland 3, Maine.

Book Review

"Modern Trends in Child Psychiatry"

Editors: Nolan D. C. Lewis, M. D., and Bernard L. Pacella, M. D.

Published by: International Universities Press, New York, 1945. 345 Pages. Price, \$6.00.

This book is made up of 17 lectures given by leading authorities in their fields. The editors explain that the selection of topics was chiefly confined to those areas of child psychiatry where research has opened up new perspectives. Each of the contributors has compressed into a comparatively small space a quantity of important material. For example, the first lecture, entitled "Anxiety in Infants and Its Disor-

ganizing Effects," is based on studies made for the dementia praecox research project financed by the Scottish Rites Masons. One of the editors of the book, Dr. Bernard Pacella has a contribution on "The Electroencephalogram in Behavior Disorders." Dr. Frederick Allen, Director of the Philadelphia Child Guidance Clinic, presents material on "Combined Psychotherapy with Children and Adults." These three titles are samples respectively of the three general subdivisions into which the book could be divided: i.e., etiological factors, diagnosis, and therapy. The editors are to be commended for compiling so useful a volume and for fulfilling the purpose they set of making accessible in it the most recent thought, investigations, and achievements in Child Psychiatry.

Councilor Reports

Report of Councilor, Second District

To the Officers and Members of the Maine Medical Association:

The counties of Androscoggin, Oxford, and Franklin, in the aggregate have evinced a growing interest in the local, state, and national issues which face the Maine Medical Association this year. In Oxford County this interest is especially marked.

The fall meeting at Bethel, Maine, was addressed by President Adam Leighton, who presented some of the problems confronting the State Association.

Due to long distances it is impossible for the entire county group to meet every month. However, a sectional group comprising six towns have met at a dinner meeting each month and have had interesting discussions relative to the local and national medical issues. This is highly commendable and encouraging.

In Androscoggin County at the February meeting, President Leighton, and Dr. Herlihy of Bangor, presented the progress of the committee on the Maine Medical School and other pressing problems.

At the April meeting, Dr. Robert McCoombs, Chief of the Post-Graduate School at Tufts, spoke on Recent Developments in Hypertension.

In Franklin County, the annual meeting was held with the election of officers. It is felt that with the return of the men from the Armed Services, increasing interest will be evident this coming year.

Respectfully submitted,

RALPH A. GOODWIN, M. D.,
Councilor, Second District.

Report of Councilor, Third District

To the Officers and Members of the Maine Medical Association:

The District has been gratified by the return of most of its members who have been in Military Service. Their resumption of practice has given a great lift both to the general public and to the profession.

The Lincoln-Sagadahoc Association has held only two meetings during the past year. It is strongly recommended that every effort be made to increase the number of meetings. I believe this should be possible under the added stimulus of the younger men back from service.

The Knox County Society has held monthly meetings with out-of-State speakers at more than half of the sessions.

Whereas, the return of physicians from military service has made available to the general public more efficient medical care, we are handicapped both in the hospitals and in the homes by lack of adequate nursing service. This problem is becoming more acute and difficult of solution.

Respectfully submitted,

C. HAROLD JAMESON, M. D.,
Councilor, Third District.

Report of Councilor, Fourth District

To the Officers and Members of the Maine Medical Association:

Your councilor for the Fourth District wishes to submit the following report:

Kennebec County has been quite active during the past year. There have been eight meetings of the Society with good attendance and a number of outside speakers. Eight new members have been taken into the Society since January 1, 1946. Meetings have been held in Gardiner, Waterville, Togus, and Augusta, and a joint meeting with the Somerset County Society at the Fairfield Sanatorium was held in April, 1946.

Somerset County: Owing to the number of men in the service, regular meetings have not been held in Somerset County. In April, the Society met with the Kennebec Society at the Fairfield Sanatorium and papers were presented by Doctors Cromwell, Jessner, Swinty, Lord and Young.

Waldo County: No report.

Respectfully submitted,

ROLAND L. MCKAY, M. D.,
Councilor, Fourth District.

Report of Councilor, Fifth District

To the Officers and Members of the Maine Medical Association:

I wish to submit the following report for the Washington and Hancock Medical Societies:

In submitting a report for Washington and Hancock Counties, this last year of World War II found some of our societies hard hit. Extra work for those at home with a lack of personnel due to the demands of the armed forces limited the number of medical meetings, attendance, and various activities connected with them.

Washington County reports an active membership of 23.

Three members have returned from the armed services.

No death loss.

The number of meetings were 3 up to last October with Dr. Raymond Bliss as speaker at one very enjoyable gathering.

The last meeting was in October, 1945. Dr. John Hanson of Machias was elected President. Dr. John Young of Jonesport was elected Secretary and Treasurer.

The next meeting is scheduled for May 23, 1946, at Calais.

The Hancock County Society has had eleven meetings since last June. The April meeting was the largest for a good many years as there were nineteen members and guests present. The society had five speakers from out of the county and the other meetings were taken care of by our own members.

The present membership of the society is 24. Included in this number are seven members who have returned from service with the armed forces.

One honorary member, Dr. C. C. Little of the Jackson Memorial Laboratory in Bar Harbor. H. A. Holt, M. D., has been proposed by the society for a 50-Year service medal at the State Association meeting at Poland Spring this June.

During the past year, we have lost two former members by death, Dr. Royal G. Higgins of Bar Harbor and Dr. B. Lake Noyes of Stonington.

One member of the society, Raymond Coffin, has gone to Alaska to practice.

A summer clinic in Bar Harbor is planned and it is hoped to have it as successful as other past meetings.

Respectfully submitted,

HAROLD S. BABCOCK, M. D.,
Councillor, Fifth District.

Report of Councillor, Sixth District

To the Officers and Members of the Maine Medical Association:

Due to pressure of time, the Councillor for the Sixth District has not made a personal visit to the Aroostook County group nor the Piscataquis County group. Both of these Associations are to be visited late in May which is too late for a report at this time.

Each of the Associations in the District has wel-

comed back a large proportion of their members who have been in the Armed Forces and the work is being redistributed and taken up with renewed interest.

In Penobscot County the usual eight meetings have been held with the added feature of a Clinic preceding the evening meeting. Attendance has increased rather markedly with the return of the younger members.

Before the annual meeting in June each of the County Associations will be contacted in person and discussion carried on relative to future activities of the State Association. It is expected that all delegates from this District will attend the State meeting in June fully instructed relative to the wishes of all members in their constituent Associations.

Respectfully submitted,

FORREST B. AMES, M. D.,
Councillor, Sixth District.

Committee Reports

Standing Committees

Public Relations Committee

To the Officers and Members of the Maine Medical Association:

The Public Relations Committee begs leave to submit the following report:

The need for a long range construction Public Relations program is obvious. Never was there greater need for education of the Public in matters of Health and the prevention of Disease and in a better understanding of the part played by the medical profession and the hospitals in making better health possible.

As a result of a move initiated by this Committee, a number of organizations interested in Health matters have formed a Health Council. These organizations include the Maine Medical Association, Maine Hospital Association, Maine Public Health Association, Maine Cancer Society, Pine Tree Society for Crippled Children, Associated Hospital Service of Maine, Maine Dental Society, Maine Nurses' Association, and the State Department of Health and Welfare. The Board of Directors of the Council consists of one representative from each member organization, usually the chairman of the Public Relations Committee. Mr. Frank H. Holley, representing the Maine Public Health Association, has been elected President.

The objectives of the Council are as follows:

- (1) To become informed in health and health education.
- (2) To promote the highest standards of public health throughout the State, including the prevention and control of disease.
- (3) To preserve and protect the best interest of the public, the hospitals and all duly qualified ethical agencies concerned with the preservation of health.
- (4) To inform the public in matters of safety and health, including the importance of the prevention of injury, and of disease, stressing the value of early diagnosis.

It is to be expected that by joint effort of these several organizations, under the leadership of a properly qualified public relations director, a constructive program of health education may be carried on which will be of great benefit to the people of Maine. By coöperating in this way, utilizing the press and the radio, under expert guidance, much more can be

achieved than by the hitherto individual efforts of the several organizations.

While the above has been its main activity, the Committee also recommends the more wide-spread use of Hospital Day as a means for health talks to the laity. It recommends that the hospitals of the State develop a program of public relations with their local newspapers and that the medical staffs coöperate in this program.

The Committee recommended to the Program Committee of the Maine Medical Association that a representative of the Council on Medical Service and Public Relations of the American Medical Association be given a place on the program of the annual meeting of the Association.

The Committee recommends that the Legislative Committee of the Association take a more positive attitude in matters pertaining to Public Health.

With virtual disappearance of the supply of blood plasma, accumulated during the war, and the ever-recurring needs for either plasma or whole blood, it would appear imperative that measures be undertaken to replenish this supply. This should be a community responsibility but the necessary interest can only be aroused by the medical profession and the hospitals taking the initiative. The Committee urges that each community be stimulated to undertake a program of blood donations in the interests of Public Safety.

The Committee asks the endorsement of the Association in participation in the Health Council previously referred to.

Respectfully submitted,

HENRY P. JOHNSON, M. D.,
ROLAND L. MCKAY, M. D.,
HENRY C. KNOWLTON, M. D.,
JOSEPH A. DONOVAN, M. D.,
FREDERICK T. HILL, M. D., *Chairman.*

Cancer Committee

To the Officers and Members of the Maine Medical Association:

Following is the report of the Cancer Committee:

The various clinics listed in the MAINE MEDICAL JOURNAL have been functioning effectively despite the lack of full complement of physicians. The outstanding fact of these clinics is the teamwork in the diagnosis and treatment which is being recognized by

both physicians and laymen as the correct approach to problems involving malignancy. The committee is pleased to welcome the return of our war veterans particularly from the point of view of the cancer clinics as it is essential that these clinics be conducted by the full staff to obtain maximum efficiency.

Members of the Tumor Clinics have responded generously to requests from the Maine Cancer Society to address lay groups in the educational program. The Cancer Society has indicated favorable responses to the requests of the Maine Cancer Committee for funds to make possible a statistical study of the cancer patients in the State of Maine during the last fifteen years. Discussions are still in progress as to the best method of approach for this important study. The information collected will be of immense assistance in evaluating the various types of therapy employed to date and will be of great interest in classifying the various types of tumors occurring in this region.

Respectfully submitted,

JULIUS GOTTLIEB, M. D.,
Chairman.

Special Committees

Committee on Graduate Education

To the Officers and Members of the Maine Medical Association:

The Committee on Graduate Education begs leave to submit the following report.

The problem of Graduate Education in the Post-War period naturally divides itself into providing opportunities for continuation study for all physicians in the State; to meeting the particular needs of returned medical veterans, whose education may have been curtailed by entering into military service, or whose service may have afforded little opportunity for keeping abreast with medical progress.

The Committee has continued to urge the development of the teaching type of staff meeting in the hospitals of the State, feeling that this offers a most valuable means of Continuation Education. Notices of the various staff meetings have been carried recently in the JOURNAL. We feel that there has been considerable improvement in the character of many of these meetings but that effort in this respect should be continued.

We are happy to report that the New England Post Graduate Medical Assembly will be reactivated next fall. An excellent program is being prepared and should interest a large number of our members.

We also suggest that efforts be made to improve the character of the different County Association meetings and that these meetings be held on regular stated dates.

The Committee has endeavored to have available information regarding residencies and Post Graduate Courses in different fields of medicine, for any member desiring assistance in further training.

Assignment of the Committee Members has been as follows:

Surgery — Dr. William Holt.

Medicine — Dr. LeRoy H. Smith.

Obstetrics and Gynecology — Dr. Magnus Ridlon.

Diseases of the Chest — Dr. Francis J. Welch.

Ophthalmology — Dr. Manning S. Moulton.

Pathology, Bacteriology — Dr. Julius Gottlieb.

Oto-laryngology — Dr. Frederick T. Hill.

The Committee has recommended for the Council that they consider the establishment of fellowships for post-graduate study and the possible utilization of income from the Pinkham fund for this purpose. It also recommended the establishment of a placement service for returned medical veterans.

The Committee will endeavor to assist in obtaining preceptorships for any who may desire them. It also will be glad to cooperate with any desirable teaching program for furthering post-graduate education in our State.

Respectfully submitted,

JULIUS GOTTLIEB, M. D.,
LEROY H. SMITH, M. D.,
MAGNUS RIDLON, M. D.,
MANNING G. MOULTON, M. D.,
WILLIAM HOLT, M. D.,
FRANCIS J. WELCH, M. D.,
FREDERICK T. HILL, M. D.,
Chairman.

Tuberculosis Committee

To the Officers and Members of the Maine Medical Association:

The American College of Chest Physicians in their Twelfth Annual Meeting in San Francisco, California, on June 27th to June 30th, 1946, among other things, are stressing the need of Tuberculosis Committees in the County Medical Societies functioning in cooperation with your State Tuberculosis Committee. They suggest that the Presidents of the County Societies be consulted and asked to appoint such Committees.

Your Tuberculosis Committee approves of this, and proper steps have been taken for cooperation. An encouraging response from the Presidents of the County Societies has already been manifested.

The Committee wishes to stress before the Association the need for Early Diagnosis. As is well known, that in the productive years, 20 to 40, Tuberculosis leads the mortality list. One cause of this is the low percentage of Minimal or Incipient cases reaching the Sanatoria. From a report from our State Sanatoria taking the figures for the years 1936—1940—1944, for example, we find a comparison of condition on admission.

	<i>Minimal</i>	<i>Moderately Advanced</i>	<i>Far Advanced</i>
1936	9.9	39.6	50.5
1940	12.75	47.4	39.8
1944	24.7	29.6	45.70

While the increase of Minimal cases during these years is encouraging, the Sanatoria records still show that two-thirds to three-fourths of the cases are Moderately Advanced to Far Advanced. This should not be.

The Committee believes that stress may be laid on preventive treatment, X-rays of all contact cases, and on the excellent work that is being done in the schools by Tuberculin Tests and X-rays, and the follow-up by the Public Health Nurses, and the work of the State Department of Health and Welfare, and the work of the Induction Boards in screening Tuberculosis. The good work done by our State Sanatoria, and the Surgical work of their co-workers must be mentioned.

Tuberculosis is a general problem, and General Hospitals must help to solve it. With renewed cooperation and interest on the part of the Physicians, and betterment in economic conditions, much may be done to reduce the Tuberculosis Mortality still more.

The Committee hopes to have a special meeting during the Annual Meeting at Poland Spring at which the Tuberculosis Committees of the County Societies will be welcome.

FRANCIS J. WELCH, M. D.,
Portland, *Chairman*.
WALTER R. GUMPRECHT, M. D.,
Bangor.
LOREN F. CARTER, M. D.,
Presque Isle.
CHARLES D. CROMWELL, M. D.,
Fairfield.
LESTER A. ADAMS, M. D.,
Hebron.
GEORGE E. YOUNG, M. D.,
Skowhegan.
RUFUS E. STETSON, M. D.,
Damariscotta.
HERBERT S. EVERETT, M. D.,
St. Stephen, N. B.

Committee to Investigate Collection Agencies

Collection Agencies in Maine are pretty good as a rule now-a-days. Only a few out-of-town collectors have invaded Maine of late. The Doctors have learned to shun the "fly-by-night" organizations, and for the most part do business with those local ones which are fully recommended by this Committee.

ADAM P. LEIGHTON, M. D.

Committee on Industrial Health

To the Officers and Members of the Maine Medical Association:

Your Committee on Industrial Health regrets the fact that we have been unable to hold a meeting to formulate or recommend any constructive suggestions to further the program on this subject. We realize that industrial medicine has come to stay and as far as we can learn the protection and health of employees of all large industrial plants is being well taken care of in our State, and there is no doubt that improvements and increased care and caution will continue in the future.

Your Chairman and other members of this committee wish to make a suggestion that the President in the future appoint on this committee men who are doing industrial work in a larger way than are the members of the present committee. This suggestion is made not because of our desire to avoid any responsibility or effort, but simply because we feel that most of us are not in a position to be as helpful in this matter as men who are doing this kind of work in a big way.

Respectfully submitted,

HAROLD W. STANWOOD, M. D.,
Chairman,
EDWIN FULLER, M. D.,
ARTHUR H. MCQUILLAN, M. D.,
ISAAC M. WEBBER, M. D.,
ALLAN WOODCOCK, M. D.

Report of the Secretary-Treasurer

To the Officers and Members of the Maine Medical Association:

As your Secretary and Treasurer I am pleased to submit the following report:

There are 740 members in good standing in the Association; 674 Active, 30 Honorary, and 36 in Military Service. Forty-nine members have been added to the roster during the past year, the largest number of new members for a good many years. Twenty-one members have died since May 31, 1945.

One hundred and fifty of our members who a year ago were in Military Service have returned to civilian status. It has been a pleasure to transfer their membership cards from our Military Service file to our list of Active Members.

The Ninety-Second Annual Session of the Association will be held at the Poland Spring House, Poland Spring, Maine, Sunday, Monday, and Tuesday, June 23rd, 24th, and 25th. The program, arranged by Ralf

S. Martin, M. D., Chairman of the Scientific Committee, and members of his committee, is published elsewhere in this issue. It speaks for itself.

At this writing we have reserved space for twenty-eight Commercial Exhibits, which are listed in the Program Section of this issue. The value of these exhibits is known to you all.

The Council of the Association held its organization meeting on Sunday, June 24, 1945, at Augusta, and elected Forrest B. Ames, M. D., of Bangor, Chairman. Frederick R. Carter, M. D., of Portland, was elected Secretary-Treasurer of the Association, and Editor and Business Manager of THE JOURNAL OF THE MAINE MEDICAL ASSOCIATION, and Esther M. Kennard, of Portland, Assistant Secretary of the Association and Assistant Business Manager of the JOURNAL. Since that time five meetings have been held. A letter relative to the principal subjects discussed at these meetings has been mailed to all members of the Asso-

ciation to familiarize each member with these matters which will come before the House of Delegates for action. A detailed report of Council Meetings will be presented by the Chairman at the First Meeting of the House of Delegates on Sunday, June 23rd, at 3.00 P. M. A sixth meeting of the Council will be held before the annual meeting to draw up a Budget for 1946-1947. This Budget, which will be based on the estimated cost of employing a Full-Time Executive Secretary, will be presented at the First Meeting of the House of Delegates for action.

The books of the Association and JOURNAL were closed and audited as of May 31, 1946, by Jordan and

Jordan, Accountants and Auditors, who report that they are complete and correct in all details of record. Their complete report, to be published in the July issue of the JOURNAL, will be in our hands before the annual meeting and will be available to any member of the Association.

I wish, in closing, to express my appreciation to the Officers and Members of the Association for their co-operation during the past year.

FREDERICK R. CARTER, M. D.,
Secretary-Treasurer.

May 31, 1946.

Report of the Editor

To the Officers and Members of the Maine Medical Association:

As Editor of the JOURNAL, I want to report that this has been one of the most difficult years the Editor has ever experienced, and I say this with particular reference to the problem of securing adequate scientific material for publication. With only a one-day meeting last year—the House of Delegates—and no scientific session, and with many County Societies meeting less frequently, we have had to be constantly on the alert to provide the JOURNAL with sufficient material to make it of value to the profession. There is a tendency on the part of many speakers at the county medical meetings to speak extemporaneously, and with no stenographer available. Consequently the JOURNAL loses many scientific articles that would be

of great value. We believe, however, that we have succeeded in a satisfactory manner and we are indeed grateful to all of the contributors, and to the County Secretaries for their assistance.

We have succeeded during the year in making a profit through the JOURNAL, and this required constant diligence in securing good advertising, and in making every effort to keep the cost of publication at a minimum. We have at the present time the largest number of advertisers in the history of the Association.

The JOURNAL has conformed to the standards of the Coöperative Medical Advertising Bureau of the American Medical Association and we can say with pride that our standing with the Bureau has top rating.

FREDERICK R. CARTER, M. D., Editor,
The Journal of the Maine Medical Association.

REPRINTS OF SCIENTIFIC ARTICLES

Page Size, 8 x 11 Inches. Type Size, 6 x 9 Inches

MINIMUM ORDER 100

	100	250	500	1000
	Self Cover	Self Cover	Self Cover	Self Cover
4 pages.....	\$10.00	\$12.00	\$15.00	\$21.00
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12 pages.....	22.00	27.50	37.00	55.50
16 pages.....	24.50	31.00	41.50	60.00

These Prices Apply Only Until 20th of the Month of Issue
SPECIAL PRICES FOR LARGER QUANTITIES UPON APPLICATION

MARKS PRINTING HOUSE

MIDDLE AND PEARL STS. P. O. BOX 384 PORTLAND, MAINE

In Memoriam

Members Deceased since May 31, 1945

Andrews, Sullivan L.,	Lewiston
Atwood, Harold F.,	Buckfield
Bayard, Clayton H.,	Orono
Brown, Maurice O.,	Dover-Foxcroft
Caza, Oliver J.,	Skowhegan
Ebbett, George H.,	Houlton
Foster, Benjamin B.,	Portland
Haney, Oramel E.,	Portland
Higgins, Royal G.,	Bar Harbor
Holt, Erastus E., Jr.,	Portland
Keller, Benjamin H.,	Thomaston
Lord, Frederick C.,	Biddeford
Marshall, Bertrand F.,	Westbrook
Needelman, William R.,	Portland
Noyes, B. Lake,	Stonington
Parsons, William H.,	Damariscotta
Sanger, Eugene B.,	Bangor
Sommers, Robert G.,	Richmond
Thompson, Clarence E.,	Saco
Upton, George W.,	Sherman
Wakefield, Frederick S.,	Lewiston

Program

92nd ANNUAL SESSION MAINE MEDICAL ASSOCIATION

JUNE 23, 24, 25, 1946

POLAND SPRING HOUSE

Poland Spring, Maine

PROGRAM ARRANGED

By the

SCIENTIFIC COMMITTEE



RALF S. MARTIN, M. D.

Chairman

INFORMATION

Registration:

Registration headquarters will be in the Lobby of the Poland Spring House. Every member and guest is requested to register and receive a badge on arrival.

Papers

All papers read before this Association shall be its property for publication in "The Journal of the Maine Medical Association," and when read shall be deposited with the Secretary.

RECEPTION COMMITTEE

C. Harold Jameson, M. D., Rockland
Martyn A. Vickers, M. D., Bangor
P. L. B. Ebbett, M. D., Houlton
Forrest B. Ames, M. D., Bangor
Theodore E. Hardy, M. D., Waterville

SUNDAY, JUNE 23, 1946

3.00 P. M.

First Meeting of the House of Delegates

7.00 P. M.

Reunion for members released from Military Service

8.00 P. M.

Dinner

Guest Speaker, Mr. John O'Connell, Editor, "Bangor Daily News," Bangor

MONDAY, June 24, 1946

Morning Session

9.00 A. M.

General Assembly:

President Adam P. Leighton, M. D.,
presiding

Invocation:

Announcements:

Ralf S. Martin, M. D., Chairman,
Scientific Committee

Frederick R. Carter, M. D.,
Secretary

CONFERENCES

9.30 A. M.-12.00 M.

I

MEDICAL

Chairman: James W. Reed, M. D.,
Farmington

SYMPOSIUM—GASTRO-INTESTINAL BLEEDING

ONE HUNDRED CASES OF ESOPHAGEAL DISEASE

George O. Cummings, M. D., Portland

Discussant, Albert C. Johnson, M. D., Portland

HEMORRHAGE FROM LESIONS OF THE STOMACH AND SMALL INTESTINES

Merrill S. F. Greene, M. D., Lewiston

Discussant, Julius Gottlieb, M. D., Lewiston

BLEEDING FROM THE LARGE INTESTINES

Dexter E. Elsemore, M. D., Dixfield

Discussant, Leon D. Herring, M. D., Winthrop

GASTRO-INTESTINAL BLEEDING, ROENTGENOLOGICAL CONSIDERATION

Jack Spencer, M. D., Portland

Discussant, Forrest B. Ames, M. D., Bangor

II

SURGICAL

Chairman: Stephen A. Cobb, M. D., Sanford

WAR SURGERY

TREATMENT OF BATTLE CASUALTIES IN AN AMPHIBIOUS INVASION

Wilbur F. Leighton, M. D., Portland

Discussant, J. Robert Feeley, M. D., Bangor

THORACO ABDOMINAL WOUNDS

Silas A. Coffin, M. D., Bar Harbor

Discussant, Alvin A. Morrison, M. D., Portland

ABDOMINAL PERINEAL WOUNDS

M. Tieche Shelton, M. D., Augusta

Discussant, Edward W. Holland, M. D., Sanford

ANESTHESIOLOGY AND SHOCK

Gilbert Clapperton, M. D., Lewiston

TREATMENT OF BURNS

Eugene P. McManamy, M. D., Portland

Discussant, Louis A. Asali, M. D., Portland

EVALUATION OF THE CONTINUATION OF WAR SURGERY

William V. Cox, M. D., Lewiston

Discussant, Reginald T. Lombard, M. D., South Portland

III

ORTHOPEDICS

Chairman: Milton S. Thompson, M. D.,
Portland

INTERNAL DERANGEMENTS OF THE KNEE JOINTS

Walter G. Dixon, M. D., Norway

Discussant, Gordon N. Johnson, M. D., Houlton

Luncheon

12.30 P. M.

Tables will be reserved for reunions of alumni of Boston University, Johns Hopkins, Bowdoin, McGill, Vermont, Tufts, Yale and Harvard Medical Schools, and members of the Tumor Clinics

Afternoon Session

2.00-5.00 P. M.

SCIENTIFIC SESSION

1. Surgical Treatment of Hypertension,
Reginald Smithwick, M. D., Boston, Mass.
2. Wertheim's Hysterectomy (with colored photography and moving pictures)
Joe Vincent Meigs, M. D., Boston, Mass.

5.00 P. M.

Election of President-elect

5.30 P. M.

Second Meeting of the House of Delegates

Evening Session

7.00 P. M.

Dinner

Guest Speaker, H. Clifford Loos, M. D., of the
Ross-Loos Medical Group Clinic, Los
Angeles, California

Subject: Prepaid Medical Group Practice

TUESDAY, JUNE 25, 1946

Morning Session

Conferences

9.30 A. M.-12.00 M.

I

ANNUAL MEETING OF THE MAINE MEDICO-LEGAL
SOCIETY

Secretary: George L. Pratt, M. D.,
Farmington

Program

Business Meeting

Election of Officers

Alan R. Moritz, M. D., Professor of Legal Medi-
cine, Harvard University, will speak on
Scientific Criminal Investigation

A. Warren Stearns, M. D., of the Department of
Sociology, Tufts College, will speak on Sex
and Crime

Every Doctor, Lawyer, and Police Officer in Maine
should hear Dr. Stearns

We expect a good delegation of the State Police

All Medical Examiners, County Attorneys, and
other regular members please pay annual
dues of \$1.00 before or at the meeting

II

MEDICAL

Chairman: Eugene H. Drake, M. D., Portland

INFECTIOUS HEPATITIS

Elton R. Blaisdell, M. D., Portland

Discussants:

Harold V. Bickmore, M. D., Portland

Paul C. Marston, M. D., Kezar Falls

THERAPEUTIC PROCEDURES IN CARDIAC DISEASE

Wilfred J. Comeau, M. D., Bangor

Discussants:

Richard S. Hawkes, M. D., Portland

Eugene H. Drake, M. D., Portland

INFECTIOUS MONONUCLEOSIS

Charles W. Steele, M. D., Lewiston

Discussants:

Donald H. Daniels, M. D., Portland

Edward A. Greco, M. D., Portland

III

SURGICAL

Chairman: Eugene E. O'Donnell, M. D.,
Portland

THE PROBLEM OF CANCER OF THE CERVIX

Theodore C. Bramhall, M. D., Portland

Discussants:

Magnus F. Ridlon, M. D., Bangor

William Holt, M. D., Portland

Jack Spencer, M. D., Portland

Joe Vincent Meigs, M. D., Boston

SMALL BOWEL OBSTRUCTION

Edward L. Herlihy, M. D., Bangor

Discussant, George A. Tibbetts, M. D.,
Portland

PROGRESS IN HANDLING SURGICAL DISEASES OF THE
COLON

Edward L. Risley, M. D., Waterville

Discussant, Isaac M. Webber, M. D., Port-
land

DEEP THROMBOPHLEBITIS

James M. Parker, M. D., Portland

IV

ORTHOPEDIC

Chairman: Allan Woodcock, M. D., Bangor

EPIPHYSEAL INJURIES

Leo J. McDermott, M. D., Portland

COLLES'S FRACTURE

Thomas A. Martin, M. D., Portland

Luncheon

12.30 P. M.

Afternoon Session

2.00-5.00 P. M.

SCIENTIFIC SESSION

1. PRESIDENT'S ADDRESS

Adam P. Leighton, M. D., Portland

2. STREPTOMYCIN

Chester S. Keefer, M. D., Boston, Mass.

OVER

Evening Session**8.00 P. M.**

Annual Dinner

Presentation of Fifty-Year Medals by President
Adam P. Leighton, M. D.Guest Speaker, **Charles Gordon Heyd, M. D., Past
President of the American Medical Association**

Subject: The Future of Medicine

Special Notices**Fifty-Year Service Medals**

Fifty-Year Service Medals will be presented to the following members at the Annual Dinner, Tuesday evening, June 25th.

*Cumberland County Medical Society***Thomas Tetreau, M. D.,** Portland
McGill University, 1896*Hancock County Medical Society***Hiram A. Holt, M. D.,** Winter Harbor
Jefferson Medical College, 1896*Penobscot County Medical Association***Edward P. Goodrich, M. D.,** Winterport
Baltimore Medical College, 1896*Somerset County Medical Society***Walter S. Stinchfield, M. D.,** Skowhegan
Bellevue Hospital Medical College, 1896

To Receive Ten-Year Service Bar

George H. Coombs, M. D., of Waldoboro, who graduated from the New York University College of Medicine in 1886, will be presented with a ten-year service bar, denoting sixty years in the practice of medicine, at the dinner Tuesday evening, June 25th. Dr. Coombs received his Fifty-Year Service Medal at the annual meeting of the Maine Medical Association in 1936.

Program for the Ladies**Registration****Entertainment Committee:**Mrs. Adam P. Leighton, Portland.
Mrs. Edward L. Herlihy, Bangor.
Mrs. Harold V. Bickmore, Portland.
Mrs. Eugene H. Drake, Portland.**Monday, June 24th:**

Luncheon Bridge.

Tuesday, June 25th:

Program to be announced.

Convention Rates**Poland Spring House****Poland Spring, Maine**

The Convention Rates for the 1946 Session are as follows:

Double Room with Twin Beds and Private Bath—
\$11.00 per person per day.

Double Room with Private Bath for Single Occupancy—\$16.00 per day.

Double Room with Twin Beds and Single Room with Private Bath Between for three people—\$10.00 per person per day.

Two Double Rooms with Twin Beds and Private Bath Between for four people—\$10.00 per person per day.

Single Room with Private Bath—\$14.00 per day.

Two Single Rooms with Private Bath Between—
\$12.00 per person per day.

Single or Double Rooms with Twin Beds, Running Hot and Cold Water—\$9.00 per person per day.

Charge for non-registered guests for meals will be as follows: Breakfast, \$1.50; Luncheon, \$2.50; Dinner, \$3.00.

Golf green fees will be \$2.00 per day. Tennis courts will be available without charge.

All automobiles must be parked in either garage at \$1.00 per day, or parking space provided at 50c per day. Employees will be available to park automobiles for guests.

Poland Spring Water will be served free at all times to guests of the hotel, and a charge made for Poland Club Soda and Gingerale.

Make Your Reservations Early

Official Delegates, 1946**County Medical Societies****FIRST DISTRICT****Cumberland County***Delegates: (One Year)*Frank A. Smith, M. D., Westbrook
Kenneth E. Dore, M. D., Fryeburg
Francis J. Welch, M. D., Portland*(Two Years)*G. E. C. Logan, M. D., Portland
Wilbur F. Leighton, M. D., Portland
Francis W. Hanlon, M. D., Portland*Alternates: (One Year)*Isaac M. Webber, M. D., Portland
Waldo T. Skillin, M. D., South Portland*(Two Years):*Henry M. Tabachnick, M. D., Portland
Donald G. Wight, M. D., South Portland**York County***Delegates:*James H. MacDonald, M. D., Kennebunk
Carl E. Richards, M. D., Alfred
Charles W. Kinghorn, M. D., Kittery

Alternates:

Paul S. Hill, Jr., M. D., Saco
John J. Murphy, M. D., South Berwick
Stephen A. Cobb, M. D., Sanford

SECOND DISTRICT

Androscoggin County

Delegates:

Ralph A. Goodwin, M. D., Auburn
Otis B. Tibbetts, M. D., Auburn
Paul R. Chevalier, M. D., Lewiston

Franklin County

Delegate:

George L. Pratt, M. D., Farmington

Oxford County

Delegates: (One Year)

Raymond R. Tibbetts, M. D., Bethel

(Two Years):

Delbert M. Stewart, M. D., South Paris

Alternates: (One Year)

Chelsey W. Nelson, M. D., Norway

(Two Years):

Lester Adams, M. D., Hebron

THIRD DISTRICT

Knox County

Delegates:

C. Harold Jameson, M. D., Rockland
Herman J. Weisman, M. D., Rockland

Alternates:

Howard L. Apollonio, M. D., Rockland
Herbert L. Miller, M. D., Camden

Lincoln-Sagadahoc Counties

Delegates:

James W. Laughlin, M. D., Newcastle
Warren E. Kershner, M. D., Bath

FOURTH DISTRICT

Kennebec County

Delegates:

Adolphe J. Gingras, M. D., Augusta
Clarence R. McLaughlin, M. D., Gardiner
Thomas C. McCoy, M. D., Waterville

Alternate:

Clair S. Bauman, M. D., Waterville

Somerset County

Delegates:

Richard P. Laney, M. D., Skowhegan
George E. Young, M. D., Skowhegan

Alternate:

Walter S. Stinchfield, M. D., Skowhegan

Waldo County

Delegate:

Eugene L. Stevens, M. D., Belfast

Alternate:

Foster C. Small, M. D., Belfast

FIFTH DISTRICT

Hancock County

Delegate:

James H. Crowe, M. D., Ellsworth

Alternate:

Phillip L. Gray, M. D., South Brooksville

Washington County

Delegate:

Walter N. Miner, M. D., Calais

Alternate:

DaCosta F. Bennett, M. D., Lubec

SIXTH DISTRICT

Aroostook County

Delegates:

P. L. B. Ebbett, M. D., Houlton
Clyde I. Swett, M. D., Island Falls

Alternates:

Lloyd H. Berrie, M. D., Caribou
Storer W. Boone, M. D., Presque Isle

Penobscot County

Delegates:

Ernest T. Young, M. D., Millinocket
Martyn A. Vickers, M. D., Bangor
John E. Smith, M. D., Bangor
Lawrence M. Cutler, M. D., Bangor

Alternates:

Asa C. Adams, M. D., Orono
LaForest J. Wright, M. D., Bangor
Clarence Emery, Jr., M. D., Bangor

Piscataquis County

Delegate:

Fred J. Pritham, M. D., Greenville Junction

Alternate:

Ralph C. Stuart, M. D., Guilford

*Association Delegates to 1946
Annual Sessions*

American Medical Association

Thomas A. Foster, M. D., Portland

Connecticut State Medical Society

Alvin A. Morrison, M. D., Portland

Massachusetts Medical Society

Thomas A. Foster, M. D., Portland

New Hampshire Medical Society

Charles W. Kinghorn, M. D., Kittery

Rhode Island Medical Society

Joseph E. Porter, M. D., Portland

Commercial Exhibits, Ninety-second Annual Session

Elmer N. Blackwell, 207 Strand Building, Portland, Maine.

Surgical Appliance Specialist.

For 20 years, Blackwell's has provided the profession with a complete service in Surgical and Corrective Appliances. You can obtain the latest improvements in Abdominal and Back Supports, Trusses, Elastic Hosiery, Arches and Women's Corsets from Blackwell's at very reasonable prices. Mr. Blackwell guarantees quick and satisfactory mail order service and invites all doctors to use this service. All supports come to you ready to fit. Mr. Blackwell will be at the exhibit personally to show the many special supports for men, women and children which the profession have been using for their patients. This is a real opportunity to learn how Blackwell's can be of greater help to you in your practice.

The Borden Company, 350 Madison Avenue, New York City.

Come and spend a few minutes at the Borden Booth and refresh your memory on our Prescription Products. Meet the new concentrated Biolac, New Improved Dryco with its formula flexibility, Mull-Soy for your milk allergic patients, powdered whole milk Klim, the improved milk sugar Beta Lactose, and the Merrell-Soule Protein and Lactic Acid Milks. Borden men are pleasant men!

Brewer & Company, Inc., 12 East Worcester Street, Worcester, Massachusetts.

The exhibit by Brewer & Company, Inc., of Worcester, Massachusetts, will emphasize their specialties with special reference to Luasmin in the treatment of Asthma and Thesodate in the treatment of Angina Pectoris. Their Ampuls and Vitamin Preparations will also be prominently displayed as well as other items of special interest from their complete line of pharmaceuticals.

Burroughs Wellcome & Co., Inc., 9 and 11 East 41st Street, New York City.

BURROUGHS WELLCOME & CO., NEW YORK, cordially invite physicians to their exhibit of a representative group of fine pharmaceuticals and chemicals. Of particular interest are GLOBIN INSULIN, a new advance in diabetic control; DIGOXIN, a pure, stable, crystalline glycoside of Digitalis lanata, combining constant, uniform potency with rapidity of action; and "DEXIN" High Dextrin Carbohydrate, the milk modifier in which the non-fermentable portion predominates; and "LUBAFAX" Brand Surgical Lubricant, our latest preparation.

The Coca-Cola Bottling Plants, Inc., Portland, Lewiston, Augusta, Bangor.

"Coca-Cola" will be served to the members and guests with the compliments of The Coca-Cola Bottling Plants.

F. A. Davis Company, 1914-1916 Cherry Street, Philadelphia, Pa.

New Titles:

Urology—McCrea; Neurology—Alpers; Radiology, Diagnosis—59 Contributors; Spinal Surgery—Albee; Medical Disorders—Murphy.
New Editions:

Diagnosis — Loewenberg; General Treatment — Reimann; Cardiology—Stroud; Tuberculosis—Goldberg; Pediatrics—Litchfield-Dembo.
Just Off Press:

Cyclopedia — Medicine — Surgery — Specialties, over 800 monographs, authoritative, complete by outstanding specialists giving all the needed information quickly. *At Your Finger Tips.*
And Many Other Subjects.

The Doho Chemical Corporation, 58 Varick Street, New York City.

The Makers of "AURALGAN" are introducing at this Meeting their new sulfa drug preparation "O-TOS-MOSAN", indicated in the treatment and control of chronic suppurative ears. Our Representatives will be happy to explain, in detail, the workings of these medications.

Also to distribute our latest series of three (3) Anatomic-Pathologic Charts of the Ear, in color, suitable for framing.

The C. B. Fleet Co., Inc., Lynchburg, Virginia.
PHOSPHO-SODA (FLEET)

The Ethical Saline Eliminant.

What may you, as a physician, expect from this stable concentrate of the two U. S. P. sodium phosphates?

1. Accurate dosage, regulated to the patient and to his condition.
2. The maximum therapeutic effectiveness of sodium phosphate.
3. Quick, gripeless evacuation for emergencies.
4. Mild, controllable elimination, for chronic biliary disturbances and constipation.
5. Unusual freedom from after-irritation, with normalizing buffer action.
6. Safe action in the therapy of tropical diseases.

Are you getting the full value of medication in your daily problems of elimination?

Geo. C. Frye Co., 116 Free Street, Portland, Maine.

Our exhibit at your June, 1946, Meeting, in a small way, shows a cross section of the various items that we will supply.

We wish that we could portray as vividly to you a panoramic view of almost a century of service to the Medical profession of Maine. Your response in daily orders, your patriotic purpose in dealing in Maine with Maine people spurs us on to greater effort to provide you with materials and the various services that you expect from an up-to-the-minute Surgical house.

With thirty people trained in the different departments, with a complete service from office planning and blue prints, to the supplying of all standard lines of equipment and supplies, we can adequately serve you.

Holland-Rantos Company, Inc., New York, Chicago, Los Angeles.

You are cordially invited to visit the Holland-Rantos booth where on display will be the nationally known and universally used Koromex contraceptive specialties. Besides the new Koromex Set Complete, which is a package combining the necessary items for com-

plete contraceptive technique there will be the new Nylmerate Jelly introduced only a short time ago and received enthusiastically for the treatment of trichomoniasis and vaginal discharges of a non-specific origin.

Representatives of the company will be on hand to answer all questions. Samples of Nylmerate Jelly and Koromex Jelly will be available as well as copies of the Dickinson Freret Charts.

Lederle Laboratories, Inc., 30 Rockefeller Plaza, New York City.

Eli Lilly and Company, Indianapolis, Indiana.

The Lilly exhibit will feature an interesting demonstration in miniature on penicillin culture. Many Lilly products will be on display, and attending Lilly medical service representatives will be present to assist visiting physicians in every possible way.

E. F. Mahady Company, 851-859 Boylston Street, Boston, Mass.

Plan to visit the E. F. Mahady Company exhibit and examine the latest types of surgical instruments and supplies. Here will be displayed Burdick physical therapy apparatus and other items of modern medical and surgical equipment.

Maine Surgical Supply Co., 10 Longfellow Square, Portland, Maine.

Mead Johnson & Company, Evansville, Indiana.

"Servamus Fidem" means We are Keeping the Faith. Almost every physician thinks of Mead Johnson & Company as the maker of Dextri-Maltose, Pabulum, Oleum Percomorphum, and other infant diet materials—including the new precooked oatmeal cereal, Pabena. But not all physicians are aware of the many helpful services this progressive Company offers physicians. A visit to our Booth will be time well spent.

The P. J. Noyes Company, Lancaster, New Hampshire.

We are grateful for the opportunity of contributing in a modest way towards the success of the meeting of the Maine Medical Association.

Thomas W. Reed Company, 533 Commonwealth Avenue, Boston, Mass.

Philip Morris & Co., Ltd., Inc., 119 Fifth Avenue, New York City.

Philip Morris & Company will demonstrate the method by which it was found that Philip Morris Cigarettes, in which diethylene glycol is used as the hygroscopic agent, are less irritating than other cigarettes. Their representative will be happy to discuss researches on this subject, and problems on the physiological effects of smoking.

Poloris Company, Inc., 12 High Street, Jersey City, N. J.

Schenley Laboratories, Inc., Executive Offices: 350 Fifth Avenue, New York City.

The Schenley Laboratories' exhibit is devoted entirely to penicillin and penicillin products, and features clinical illustrations of treated patients. The complete

apparatus for penicillin aerosol treatment of respiratory infections by inhalation is demonstrated to interested physicians by well informed attendants at the booth. Descriptive literature concerning this treatment method and various Schenley Laboratories' products is supplied on request.

Schering Corporation, 86 Orange Street, Bloomfield, N. J.

The Schering exhibit will feature the latest developments in endocrine therapy, radiographic aids and other pharmaceutical advances.

Of particular interest is the presentation of Combisul-TD. Combisul-TD is a sulfonamide combination based upon the now proved therapy which offers the therapeutic benefits of sulfathiazole and sulfadiazine with a material decrease in the danger of renal toxicity and crystalluria.

Schering professional service representatives will be present to answer inquiries and to provide valuable, informative literature.

Surgeons' & Physicians' Supply Co., 761 Boylston Street, Boston, Mass.

The Surgeons' & Physicians' Supply Company booth will be attended by our Maine representative, Mr. Joy. We will show among other things X-rays, diathermy, and a number of other interesting items, such as are not easily shown by a representative on his regular trips.

Tailby-Nason Company, Cambridge, Mass.

It will be a pleasure to have you visit the Tailby-Nason Booth where our representatives will be pleased of the opportunity to again welcome you in an unhurried and friendly environment and show you Nason's SUPERTAH, CALAMATUM, VITAGU-ENT, LAMO, TENICIDE, POTENSORS, leaders of a full line of pharmaceuticals for over forty years.

White Laboratories, Inc., 113 North 13th Street, Newark, N. J.

White Laboratories, Inc., will present information regarding White's Sulfathiazole Gum—expressly formulated for topical chemotherapy in oropharyngeal infections; White's Otomide—a more effective means of topical chemotherapy in ear infections—and a NEW specialty, White's Mol-Iron Tablets, a new and definite advance in the treatment of iron deficiency anemias.

White's ethically promoted vitamin specialties are also featured. You will find a very cordial welcome by White's Medical Service Representative in charge of the exhibit.

The Zemmer Company, 3943-5-7 Sennott Street, Pittsburgh, Pa.

A cordial invitation is extended to the members of the Maine Medical Association and their guests to visit the display of The Zemmer Company's leading pharmaceutical products.

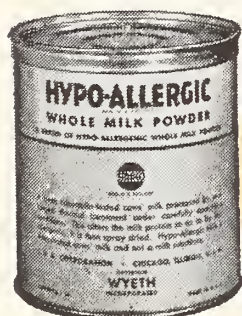
The Alkalol Company, Taunton, Massachusetts.

Wyeth, Incorporated, 1600 Arch Street, Philadelphia.



Protein a problem?

Altered Protein



HYPO-ALLERGIC* WHOLE MILK

Particularly suited for infants and children allergic to cow's milk protein, Hypo-Allergic Milk has been rendered less allergenic by means of prolonged thermal processing. When reconstituted with water it is used in the same proportion as whole cows' milk.

POWDER—1 lb. tins

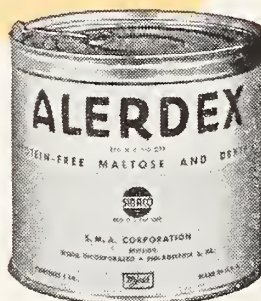
LIQUID 14½ oz. tins

ALERDEX*

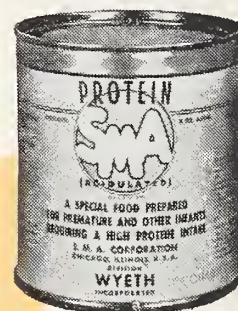
Protein-free Maltose and Dextrins

An all-around milk modifier especially useful in the hypo-allergenic milk diet of the infant sensitive to proteins, Alerdex is prepared from noncereal starch by a special procedure to eliminate every trace of protein.

POWDER—16 oz. tins



High Protein



PROTEIN S-M-A* (Acidulated)

The easily digested curd and liberal vitamin content makes Protein S-M-A a valuable aid in the management of premature and undernourished newborn infants. Also indicated in infant diarrhea and other conditions where a high protein intake is required.

POWDER—8 oz. tins

Use one of these Special
Infant Foods

No Protein

S. M. A. DIVISION

*REG. U. S. PAT. OFF.

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May 31, 1946

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Brien, Maurice,	80 Pine St., Lewiston
Brooks, Glidden L.,	300 Main St., Lewiston
Buker, Edson B.,	80 Goff St., Auburn
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Caron, Frederick J.,	174 Bates St., Lewiston
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Clapp, Roland D.,	300 Main St., Lewiston
Clapperton, Gilbert,	20 Ware St., Lewiston
Corrao, Frank P.,	86 Pine St., Lewiston
Cox, William V.,	82 Gamage St., Auburn
Desaulniers, George E. D.,	106 Chestnut St., Lewiston
Desaulniers, Lucy O'C.,	92 Pine St., Lewiston
Fahey, William J.,	17 Frye St., Lewiston
Fortier, Paul J. B.,	70 Pine St., Lewiston
Gauvreau, Horace L.,	82 Pine St., Lewiston
Gerrish, Lester P.,	Lisbon Falls
Giguere, Eustache N.,	108 Cedar St., Lewiston
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Goodof, Irving,	300 Main St., Lewiston
Goodwin, Ralph A.,	56 Dennison St., Auburn
Gottlieb, Julius,	300 Main St., Lewiston
Grant, Alton L., Jr.,	133 Court St., Auburn
Greene, Merrill S. F.,	466 Main St., Lewiston
Gross, Leroy C.,	19 Goff St., Auburn
Hanscom, Oscar E.,	Greene
Hayden, Louis B.,	Livermore Falls
Higgins, Everett C.,	149 College St., Lewiston
Hirshler, Max,	85 Pine St., Lewiston
James, Chakmakis,	133 College St., Lewiston
Mandelstam, Abe W.,	Lewiston
Marcotte, John B.,	280 Lisbon St., Lewiston
Marston, Edwin J.,	76 Goff St., Auburn
Methot, Frank,	47 Orange St., Lewiston
Miller, Hudson R.,	11 Turner St., Auburn
Murphy, D. Jerome,	126 College St., Lewiston
Peaslee, Clarence C.,	42 Goff St., Auburn
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Randall, Ray N.,	19 Sabattus St., Lewiston
Renwick, Ward J.,	102 Goff St., Auburn
Rowe, Gunthner H.,	Livermore Falls
Roy, Leopold O.,	54 Pine St., Lewiston
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Russell, Daniel F. D.,	Leeds
Schneider, George A.,	198 Lisbon St., Lewiston
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Steele, Charles W.,	472 Main St., Lewiston
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Williams, James A.,	Mechanic Falls

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Webber, Wallace E.,	297 Main St., Lewiston

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Harkins, Michael J.,	Lewiston

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Doble, Eugene H.,	Presque Isle
Donahue, Gerald H.,	Presque Isle
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Ebbett, Penry L. B.,	Houlton
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Gibson, William B.,	Houlton
Gormley, Eugene G.,	Houlton
Gregory, Frederick L.,	Caribou
Griffiths, Eugene B.,	Presque Isle
Grow, William B.,	Presque Isle
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Hogan, Chester,	Houlton
Huggard, Leslie H.,	Limestone
Jackson, Frank H.,	Houlton
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Kimball, Herrick C.,	Fort Fairfield
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Toussaint, Leonid G.,	Fort Kent
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 Beck, Henry W., Gray
 Bergmann, Jerome W., 131 State St., Portland
 Bickmore, Harold V., 723 Congress St., Portland
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 Bishop, Lloyd W., 211 Vaughan St., Portland
 Blaisdell, Elton R., 12 Deering St., Portland
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 Brown, Luther A., 13 Deering St., Portland
 Brown, Stephen S., 22 Arsenal St., Portland
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 Burns, Robert, Windham
 Cappello, Joseph, 144 Spring St., Portland
 Carmichael, Frank E., 72 Deering St., Portland
 Casey, William L., 131 State St., Portland
 Center, Ervin A., Steep Falls
 Christensen, Harry E., 29 Deering St., Portland
 Clarke, Chester L., 10 Congress Square, Portland
 Clough, Dexter J., 10 Dow St., Portland
 Conneen, Lawrence W., 131 State St., Portland
 Cragin, Charles L., 831 Congress St., Portland
 Cummings, George O., 47 Deering St., Portland
 Curtis, Harry L., 142 High St., Portland
 Daniels, Donald H., 73 Deering St., Portland
 Davidson, David, 45 Deering St., Portland
 Davidson, Gisela K., 45 Deering St., Portland
 Davis, Harry E., 169 State St., Portland
 Davis, Paul V., Bridgton
 Derry, George H., Jr., 756 Congress St., Portland
 Dionne, Maurice J., Brunswick
 Dooley, Francis M., 53 Deering St., Portland
 Dore, Kenneth E., Fryeburg
 Dorsey, Frank D., 52 Deering St., Portland
 Douphinett, Otis J., Portland
 Drake, Eugene H., 58 Deering St., Portland
 Drummond, Joseph B., 10 Ship Channel Rd., So. Portland
 Dunham, Carl E., 201 State St., Portland
 Dyer, Henry L., 27 Green Sq., Berlin, N. H.
 Dyhrberg, Norman, Gorham
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 Fagone, Francis A., 312 Congress St., Portland
 Ferguson, Franklin A., 9 Deering St., Portland
 Ferguson, Franklin F., 22 Arsenal St., Portland
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 Fisher, Stanwood E., 388 Spring St., Portland
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 Foster, Thomas A., 131 State St., Portland
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 Geer, George I., Jr., 690 Congress St., Portland
 Gehring, Edwin W., 131 State St., Portland

Getchell, Ralph A., 47 Bramhall St., Portland
 Geyerhahn, George, 73 Deering St., Portland
 Glassmire, Charles R., 45 Deering St., Portland
 Goduti, Richard J., 704 Congress St., Portland
 Gordon, Charles H., 46 Deering St., Portland
 Gould, Arthur L., Freeport
 Greco, Edward A., 12 Pine St., Portland
 Hall, Earl S., 696 Congress St., Portland
 Ham, Joseph G., 690 Congress St., Portland
 Hamel, John R., 50 Deering St., Portland
 Hanlon, Francis W., 46 Deering St., Portland
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 Hatch, Lucinda B., 27 Deering St., Portland
 Hawkes, Richard S., 47 Deering St., Portland
 Hebb, Henry S., Bridgton
 Heifetz, Ralph, 196 Baxter Blvd., Portland
 Hills, Louis L., 816 Main St., Westbrook
 Holt, C. Lawrence, 178 Bay State Rd., Boston, Mass.
 Holt, William, 14 Deering St., Portland
 Huntress, Roderick L., 10 Congress Sq., Portland
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 Johnson, Gordon N., Houlton
 Johnson, Henry P., 32 Deering St., Portland
 Johnson Oscar R., 18 Deering St., Portland
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 Lamb, Henry W., 131 State St., Portland
 Lappin, John J., 171 State St., Portland
 Laughlin, Kenneth, 15 Thomas St., Portland
 Leighton, Adam P., 192 State St., Portland
 Leighton, Wilbur E., 192 State St., Portland
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 Lombard, Reginald T., 793 Main St., So. Portland
 Lorimer, Robert V., 201 State St., Portland
 Lothrop, Eaton S., 690 Congress St., Portland
 Love, Robert B., Gorham
 Lovely, David K., 73 Deering St., Portland
 Macdonald, H. Eugene, 201 State St., Portland
 Maltby, George F., 29 Deering St., Portland
 Marshall, Donald F., 142 High St., Portland
 Marston, Paul C., Kezar Falls
 Martin, Ralf S., 58 Deering St., Portland
 Martin, Thomas A., 131 State St., Portland
 McAdams, William R., 723 Congress St., Portland
 McCrum, Philip H., 188 State St., Portland
 McDermott, Leo J., 151 Vaughan St., Portland
 McLean, E. Allan, 29 Deering St., Portland
 McManamy, Eugene P., 690 Congress St., Portland
 Melnick, Jacob, 333 Congress St., Portland
 Miller, Thor, 752 Main St., Westbrook
 Monkhouse, William A., 62 Bowdoin St., Portland
 Moore, Roland B., 201 State St., Portland
 Morrison, Alvin A., 47 Deering St., Portland
 Morrison, James B., 582 Main St., Westbrook
 Moulton, Albert W., 180 State St., Portland
 Moulton, Albert W., Jr., 32 River St., Boston, Mass.
 Munro, Burton S., Berlin, N. H.
 Nichols, Arthur A., 22 Arsenal St., Portland
 O'Donnell, Eugene E., 32 Deering St., Portland
 Ottum, Alvin E., 31 Deering St., Portland

Parker, James M.,	31 Deering St., Portland
Patterson, James,	614 Highland Ave., So. Portland
Peaslee, C. Capen, Jr.,	339 Woodford St., Portland
Peters, Clinton N.,	10 Congress Sq., Portland
Pingree, Harold A.,	131 State St., Portland
Polisner, Saul R.,	188 State St., Portland
Poore, George C.,	73 Deering St., Portland
Porter, Joseph E.,	22 Arsenal St., Portland
Richardson, Clyde E.,	Brunswick
Ridlon, Magnus G.,	Kezar Falls
Robinson, Carl M.,	31 Deering St., Portland
Rowe, Daniel M.,	757 Congress St., Portland
Santoro, Domenico A.,	756 Congress St., Portland
Sawyer, Samuel G.,	Cornish
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Scolten, Adrian H.,	32 Deering St., Portland
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Smith, Kenneth E.,	73 Deering St., Portland
Spencer, Jack,	31 Deering St., Portland
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Stuart, Albert F.,	U. S. Marine Hosp., Portland
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Szanton, Victor L.,	Jackman Station
Tabachnick, Henry M.,	110 Park Ave., Portland
Tetreau, Thomas,	44 Monument St., Portland
Thaxter, Langdon T.,	342 Spring St., Portland
Thompson, Philip P.,	704 Congress St., Portland
Tibbetts, George A.,	519 Cumberland Ave., Portland
Tobie, Walter E.,	3 Deering St., Portland
Tougas, Raymond,	Brunswick
Ulpits, Reynold G. E.,	83 West St., Portland
Upham, Roscoe C.,	15 Crescent St., Biddeford
Walker, Maribel H.,	Cape Cottage
Ward, John V.,	131 State St., Portland
Webb, Harold R.,	Brunswick
Webber, Isaac M.,	29 Deering St., Portland
Webber, M. Carroll,	735 Stevens Ave., Portland
Webster, Fred P.,	10 Congress Sq., Portland
Weeks, DeForest,	158 Pleasant Ave., Portland
Welch, Francis J.,	44 Deering St., Portland
Wellington, J. Foster,	655 Congress St., Portland
Wescott, Clement P.,	201 State St., Portland
Whitney, Harlan R.,	655 Congress St., Portland
Whittier, Alice A. S.,	143 Neal St., Portland
Wight, Donald G.,	30 Mitchell Rd., So. Portland
Williams, Ralph E.,	Freeport
Wilson, Clement S.,	Brunswick
Witte, Max E., Jr.,	756 Congress St., Portland
Woodman, Arthur B.,	Falmouth Foreside
Zolov, Benjamin,	296 Congress St., Portland

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Pepper, John L.,	960 Sawyer St., So. Portland
Robinson, Edward F.,	Falmouth
Wheet, Frederick E.,	773 Main St., Westbrook

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Pratt, George L.,	Farmington
Reed, James W.,	Farmington
Thompson, Cecil F.,	Phillips
Weymouth, Currier C.,	Farmington
Zikel, Herbert M.,	Wilton

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White, Verdeil O.,	East Dixfield
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Parcher, George,	Ellsworth
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Trowbridge, Mason,	Ellsworth
Wakefield, Ralph W.,	Bar Harbor
Weymouth, Raymond E.,	Bar Harbor
Wilbur, Herbert T., Jr.,	Southwest Harbor

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 Coombs, George A., 283 Water St., Augusta
 Cromwell, Charles D., Central Maine Sanatorium, Fairfield
 Cyr, Gerald A., 50 Main St., Waterville
 Dunn, Robert H., Veterans' Adm., Togus
 Elkins, Harry, Augusta State Hospital, Augusta
 Farrell, Chalmers G., Gardiner
 Fay, Thomas F., Augusta
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 Gingras, Napoleon J., 105 Water St., Augusta
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 Gousse, William L., Fairfield
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 Harlow, Edwin W., 177 Main St., Waterville
 Harris, Ralph N., Veterans' Adm., Togus
 Herring, Leon D., Winthrop
 Hill, Frederick T., 177 Main St., Waterville
 Hill, Howard F., 177 Main St., Waterville
 Hirschberger, Celia, 44 Main St., Waterville
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 Kagan, Samuel H., 283 Water St., Augusta
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 Mazzola, Stephen, Veterans' Adm., Togus
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 McLaughlin, Clarence R., 345 Water St., Gardiner
 McLaughlin, Ivan E., 345 Water St., Gardiner
 McQuillan, A. H., 177 Main St., Waterville
 McWethy, Wilson H., 284 Water St., Augusta
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 Metzgar, John G., Augusta
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 Milliken, Howard H., 105 Second St., Hallowell
 Mitchell, Roscoe L., 111 Western Ave., Augusta
 Moore, Arnold W., 756 Congress St., Portland
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 Murphy, Norman B., Augusta
 Newcomb, Charles H., Clinton

Newman, Benjamin, Veterans' Adm., Togus
 O'Connor, William J., 341 Water St., Augusta
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 Piper, John O., 177 Main St., Waterville
 Pomerleau, Ovide F., Waterville
 Pomerleau, Rodolphe J. F., Waterville
 Poulin, James E., 177 Main St., Waterville
 Priest, Maurice A., 283 Water St., Augusta
 Provost, Helen C., 48 Green St., Augusta
 Provost, Pierre E., 48 Green St., Augusta
 Reynolds, Ralph L., 101 Main St., Waterville
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 Sewall, Kenneth W., 173 Main St., Waterville
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 Small, Harold E., 31 Grove St., Augusta
 Small, Morton M., 11 School St., Waterville
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 Staciva, Stanley J., Veterans' Adm., Togus
 Stubbs, Richard H., 133 State St., Augusta
 Towne, Charles E., 135 Main St., Waterville
 Trask, Burton W., Veterans' Adm., Togus
 Tyson, Forrest C., Augusta State Hospital, Augusta
 Ventimiglia, William A., Veterans' Adm., Togus
 Williams, Edmund P., Oakland
 Young, William J., 51 Landscape Ave., Yonkers, New York

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 Reynolds, John F., Waterville
 Towne, John G., Waterville

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 Brown, Freeman F., Jr., 15 Maple St., Rockland
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 Dennison, Frederick C., Thomaston
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 Foss, Alvin W., 11 Beech St., Rockland
 Frohock, Horatio W., 10 Summer St., Rockland
 Green, Archibald F., 60 Elm St., Camden
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 Jameson, C. Harold, 465 Main St., Rockland
 Jones, Paul A., Union
 Lawry, Oram R., Jr., 27 Oak St., Rockland
 Leach, Charles H., Tenants Harbor
 Miller, Herbert L., Camden
 Millington, Paul A., Camden
 North, Charles D., 38 Union St., Rockland
 Platt, Anna, Friendship

Shields, Victor H.,	North Haven
Soule, Gilmore W.,	Rockland
Toungue, Harry G.,	Camden
Tweedie, Hedley V.,	407 Main St., Rockland
Wasgatt, Wesley N.,	Rockland
Watson, Charles J.,	5 Gay St., Thomaston
Weisman, Herman J.,	76 Limerock St., Rockland

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Dougherty, John,	Bath
Fuller, Edwin M.,	119 Front St., Bath
Fuller, Edwin M., Jr.,	108 Front St., Bath
Grant, Hugh,	Bath
Gregory, Philip O.,	Boothbay Harbor
Hamilton, Virginia C.,	900 Washington St., Bath
Kershner, Warren E.,	119 Front St., Bath
Laughlin, James W.,	Newcastle
Mills, Nathaniel,	Bath
Morin, Harry F.,	72 Front St., Bath
Parsons, Neil L.,	Damariscotta
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Proctor, Thomas E.,	Boothbay Harbor
Smith, Jacob,	Bath
Smith, Joseph I.,	73½ Front St., Bath
Stetson, Rufus E.,	Damariscotta
Winchenbach, Francis A.,	Bath

HONORARY MEMBER

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Dixon, Walter G.,	Norway
Eastman, Charles W.,	Livermore Falls
Elsemore, Dexter E.,	Dixfield
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Holin, Sabina,	Hebron
Howard, Henry M.,	Rumford
Hubbard, Roswell E.,	Waterford

Jackson, Norman M.,	6 Elm St., Milford, N. H.
Kay, Edwin,	671 Main St., Lewiston
Leslie, Frank E.,	Andover
MacDougall, James A.,	303 Penobscot St., Rumford
McCarty, Eugene M.,	82 Main Ave., Rumford
McCormack, Roland L.,	Norway
Moody, Harry A.,	150 Congress St., Rumford
Moore, Beryl M.,	Oxford
Nelson, Chelsey W.,	Norway
Noyes, Harriett L.,	114 Congress St., Rumford
Pearson, Henry,	Brownfield
Reeves, Edward L.,	South Paris
Rowe, William T.,	250 Penobscot St., Rumford
Royal, Albert P.,	82 Main Ave., Rumford
Stanwood, Harold W.,	5 Franklin St., Rumford
Stewart, Delbert M.,	So. Paris
Tibbetts, Raymond R.,	Bethel
Wilson, Harry M.,	Bethel

HONORARY MEMBER

Sturtevant, James S.,	Dixfield
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Daniels, S. David,	Hebron
Lawrence, Homer E.,	Bethel
Oestrich, Alfred,	Mexico
Villa, Joseph A.,	So. Paris

PENOBSCOT COUNTY

MEMBERS

Adams, Asa C.,	Main St., Orono
Adams, Winford C.,	142 No. Main St., Brewer
Ames, Forrest B.,	489 State St., Bangor
Blaisdell, Carl E.,	47 Broadway, Bangor
Blaisdell, William B.,	11 Ohio St., Bangor
BoDine, Charles E.,	27 State St., Bangor
Butler, Harry,	77 Broadway, Bangor
Clement, James D.,	77 Essex St., Bangor
Clough, Dexter J., 2nd,	224 State St., Bangor
Clough, Herbert T., Jr.,	111 State St., Bangor
Comeau, Wilfrid J.,	48 Penobscot St., Bangor
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Glycerite of Hydrogen Peroxide: An Evaluation of Its Clinical Effects in Mixed Infections of the Skin and Mucous Membranes

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The general practitioner who is faced with the problem of combatting an infection, either general or local within the body and susceptible to treatment, can follow a reasonably exact scientific technique for its eradication. The optimum blood levels that are necessary for treatment with the sulfonamides or antibiotics have been measured; and the doses, as by mouth or injection, defined. The bacteria present in what is termed a "closed system" can often be eliminated with dramatic success.

It is quite otherwise when micro-organisms invade the body surfaces, primarily, as acute or chronic infections of the skin and mucous membranes; or secondarily, as following accidental or surgical trauma. The infections are mixed, and, in an "open system," not perceptible to accurate definition, measurement, or treatment. Although exact techniques can be followed in both animals and humans for ascertaining the efficacy of chemotherapeutic or antibiotic agents used to combat a pneumonia or a

meningitis, there are no comparably adequate tests for discovering the efficacy of an antiseptic solution to be used for a wound disinfection.

The tests for solutions used for this purpose all emphasize two qualities of little or no importance: time and dilution factors, as though the treatment of an infected wound in any way resembled the pre-operative degerming of normal integument.

The relative unimportance of these time and dilution factors is easily demonstrated. Neither the physician nor the patient is vitally concerned that an antiseptic solution acts upon an infected ear or an infected varicose ulcer in five minutes as compared to fifteen minutes, because the infection has not only been present for some time but also because no solution will kill all of the bacteria present nor prevent further infection from taking place. The length of time with which the solution acts after its initial application is rarely given consideration, although this attribute is one of great importance. In open systems also the

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dilution factor carries little weight because of three reasons. The dilution with which the application is made is frequently so great (1:1,000) that the final effective dilution (1:10,000) appears greater than the proportion of 1:10 that it really represents. Secondly, when tested in the laboratory test tube, in closed systems, the concentrations of tinctures actually are diluted, but, when placed on the skin, the evaporation of the alcohol-acetone vehicle rapidly concentrates the solution. Following complete evaporation of the vehicle, the residual antiseptic substance, in dry form, is frequently inactive for germicidal purposes, although the beautiful tints left on the skin may impress the patient psychologically.

The third reason which operates in exudative surfaces, in which dilution factors do occur, is equally obvious. The dynamics of wound healing involve the presence of an exudate which serves to wash out bacteria, and dilute, or chemically or immunologically, neutralize toxic substances. A tincture or an aqueous antiseptic solution applied to this type of lesion acts like a bottle of ink emptied into a running stream. It can neither reach the source of supply, nor increase its amount. Only mechanically-effective, hygroscopic agents can have any effect, however little.

It was with these, and other factors, in mind that research for an antiseptic useful for topical application in sub-acute and chronic infections was initiated.

There are many substances which may be used for degerming intact skin, all equally failing in their purpose since strip-biopsy experiments prove that it is impossible to rid the top layers of the integument of their bacteria. At best, a great number of the normal inhabitants of the body surface can be killed, or, made temporarily non-viable. No such solutions can be used as a wet dressing to disinfect an open wound. This state, if necessary or desirable, could be achieved by a solution such as tincture of iodine, applied at hourly intervals. The cost in anatomical or physiological damage is one which no patient would wish to pay, especially since both the patient and the physician know, as a result of common sense observation, that almost all small wounds heal themselves. It is necessary at this point to save ourselves from the opposite error from concluding erroneously that no wound requires any dressing. Clinical

experience tells us the present infection must be minimized, and future gross infection prevented. More than this we cannot do excepting to treat infection when it really occurs.

Since applications to such wounds must be frequent and prolonged, the substance used must approach physiological concepts as closely as possible. Hydrogen peroxide, whose end products are water in oxygen, could by its very nature cause neither a toxic nor allergic reactions. It might be irritant if applied in solutions sufficiently strong to be caustic, but fortunately, its anti-bacterial effects take place in concentrations which are not irritating. It has additional advantages of being deodorant, detergent, and somewhat hemostatic. Its anti-bacterial spectrum is broad.

There are, however, three reasons which militate against the use of the aqueous peroxide solutions. In the presence of the peroxidase contained in the tissues, the aqueous solutions are so rapidly decomposed that bacteria are little affected. In the absence of peroxidase, the anti-bacterial action is relatively slow. In the presence of massive exudates, of course, no antiseptic solution has an effect. Its third disadvantage is the instability of the aqueous solutions available in the past.

By the use of urea peroxide as a source of hydrogen peroxide, or the use of pure hydrogen peroxide dissolved in glycerol, the attributes of the solution change for the better. Since the oxygen of decomposition entrapped in the glycerol churns it, the inter-face between the solution and the infected surface is continuously renewed, prolonging the peroxide action. If urea peroxide is used for the basic ingredient, the residual urea, itself bacteriostatic, dissolves necrotic tissue and hastens wound healing. The solution can be stabilized in substances which enhance its bactericidal powers. Theoretical considerations then suggest that a glycerite of hydrogen peroxide would be deodorant, detergent and hemostatic, suitable for mixed infections associated with little exudate, and useful for prolonged application, since, excepting for the drying effect of the glycerol, it would not be toxic, irritant, or allergenic. These theoretical considerations, however, would be of little value unless the laboratory and clinical results prove them justified.

In the laboratory, by a modified cup plate technique, it was demonstrated that a compari-

son with the tinctures of: iodine (7%); mer-cresin (standard strength); metaphen (0.5%); Zephiran (0.1%); and Phemerol (0.1%), as well as aqueous mercurochrome (2%) that the solution demonstrated zones of bactericidal potency approaching that of tincture of iodine for the following gram-positive organisms: *Staphylococcus aureus*; streptococcus (alpha and beta hemolytic); an enterococcus; *Micrococcus epidermidis*; a diphtheroid; and the following gram-negative organisms: *Proteus mirabilis*; *Pseudomonas pyocyaneus*; *Escherichia coli*; *aerobacter aerogenes*; and *Eberthella typhosa* (5).

In order to measure the possible irritant effects of the solution upon intact skin, and skin damaged as a result of trauma or infection, one hundred normal individuals were patch-tested with the material for forty-eight hours. None showed any positive irritant reactions. At the time of the tissue tolerance studies³, the material had been used on over seven hundred patients; and the results were classified from the point of view of possible irritation. Six of the patients with infected skins showed irritation when using an 8% solution (double that normally prescribed), and one following a twelve-hour exposure to a 4% solution when it was diluted with an equal amount of water. In five patients with infected skin conditions, two presented exacerbations of their original lesions; and three, folliculitis. Of the remaining patients, five hundred and forty-nine showed no sign that might be interpreted as the result of irritation; allergenicity; or toxicity following the use of the undiluted 4% solution. These results would suggest, from a mathematical point of view, that at a 95% level of likelihood, the rate of positive reactions for the general population would probably be less than 1%.

The first clinical patients were naturally those suffering from chronic suppurative otitis media. Both peroxides in water and glycerol as a base had been used for the purpose of treating such conditions. In the first series of patients⁶, there were thirty-seven individuals; two of whom failed to return for further treatment or observation and were considered as failures. Of the remainder, three showed no improvement; and, in addition, three were given or required penicillin intramuscularly or locally to clear their conditions. The chronic

purulent otitis media in the remaining patients completely cleared with the antiseptic solution used locally at intervals of four hours from arising to retiring. Although the condition had been present for a period of four weeks to forty years in a series of patients varying from three to sixty-five years of age, seventeen patients presented complete remissions with fourteen days, and the remainder by the thirty-eighth treatment day.

Since the results were better than had been anticipated, a second investigator in another clinic was given the same solution to use in the same way⁴. Of a series of twenty-nine patients, ranging in age from three to sixty-two years with conditions reported as having been present from three days to thirty years, twenty of twenty-five who completed their treatment responded with complete remission or with improvement while still under observation; four patients having failed to return.

In both series of cases, the infections were of the same type: that is, the organisms being various types of staphylococci and streptococci, and, in addition, representatives of diphtheroid, the colon group, and the other common skin contaminants.

A third investigator¹ then used the solution in another series of twenty-six patients of whom eight were reported to have shown excellent results: that is, complete remission; six, fair results while under treatment; seven, good results; and, five were unimproved. In this last group were included patients with fungous infections; all of whom had returned from the Pacific theatre of war, and presented extremely recalcitrant lesions.

Glycerite of hydrogen peroxide was then used for the treatment of a group of patients with empyemata.⁷ Nine patients were studied over a period of fifteen months, the empyema cavities presenting infections with: *Staphylococcus aureus*; Beta hemolytic streptococcus; *Proteus vulgaris*; *Pseudomonas pyocyaneus*, and a diphtheroid bacillus. Seven of the patients presented mixed empyemata associated with tuberculosis. The material was used as a 3 c.c. injection into the empyema cavity twice daily. The staphylococci present in eight patients disappeared in 4-14 weeks. The Beta hemolytic streptococci, present in two patients, disappeared after four weeks. The *Pseudomonas pyocyaneus* and the diphtheroids present

on four occasions were eradicated in periods varying from one week to two months.

Concomitant studies with lung infections were done², using the solution as an Aerosol. The illustrative case records include: bronchial asthma complicated by infectious bronchitis, as well as suppurative bronchiectasis. The glycerite of hydrogen peroxide aerosol was alternated with penicillin, or given after penicillin aerosolization had been discontinued. The results were encouraging, as shown by the clinical improvement of the patients, and work now in progress is concerned with the use of the Glycerite of Hydrogen Peroxide Aerosol in primary and secondary infections of the type seen in pulmonary tuberculosis.

The clinical studies were then extended to the treatment of acute, sub-acute, and chronic infections of the skin and mucous membranes⁸. In this series of patients, one hundred and twenty subjects presenting twenty-three dermatological entities, used the solution as an application twice daily, or as a continuous wet dressing.

The types of skin conditions present may be listed as: vesicular, squamous and pustular dermatophytosis; Onychomycosis; Paronychia; Tinea cruris; tinea of the hands; Erosio interdigitale; tinea of the external ear; Tinea barbae; Aphthous stomatitis; Herpes Simplex; Gingivitis; Lingual tonsillitis; Epidermolysis bullosa; traumatic lesions of the mouth; Impetigo; wounds; lacerations; local infections; Pustular Psoriasis; Solar Dermatitis; Sensitization Dermatitis; and Verrucae. The material was also used on fifty additional patients as a post-operative dressing. In none of these was there any secondary infection. Although the solution was found ineffective in the treatment of Psoriasis, Solar Dermatitis, and Verrucae, and too stimulating for use in some patients with Tinea and Sensitization Dermatitis, it appeared effectively to lessen infection and hasten wound-healing time in the greater number of primary fungous, and primary and secondary bacterial infections. The authors concluded that the progress of certain types of virus infections seemed favorably influenced by the use of the solution.

From these studies, and from work in progress, certain tentative conclusions may be drawn. We know that the solution cannot be

used effectively for sterilizing intact skin as a pre-operative procedure. Glycerite of Hydrogen Peroxide works too slowly to be useful unless the patient has a wet dressing applied overnight. If applied too frequently, over too long a period of time, Glycerite of Hydrogen Peroxide causes a dehydration of the tissues seen especially in diabetic individuals. Preliminary studies, however show that such drying rapidly disappears when the use of the solution is discontinued.

In certain types of fungous infections, such as Tinea barbae, the solution may occasionally seem stimulating. It seems to have little or no effect upon Sensitization Dermatitis; and none in Solar Dermatitis. It has no effect upon Psoriasis or upon Verrucae when applied to the sheared wart.

Its best effects have so far been achieved in the treatment of infections of the ear canal; bacterial and fungous infections of the skin; for sub-acute and chronic infections as seen in varicose and diabetic ulcers and grossly-contaminated, lacerated wounds, and as a post-operative dressing.

Investigative work, now in progress, is concerned with the evaluation of the solution, in lung infections as seen both in empyema and in bronchitis, bronchiectasis, and tuberculosis.

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Progress in the Treatment of Gonorrhea

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Gonorrhea has increased from a 1935 incidence¹ of about 0.34% for the United States as a whole, with the highest reports about 1%, to figures unofficially quoted of as high as 20% in isolated instances, during the war and following it. With the advent of modern miracle drugs which have reduced gonorrhea to the seriousness of a common cold we have combined long separations of husbands from wives under war conditions in order to obtain this increased incidence, against which the heaviest bombardment of anti-venereal disease propaganda was of little avail. This apparent ebb in the control of gonorrhea is really marked by startling progress forward. Let us compare the facts.

Ten years ago, and perhaps much more recently, as many as 60% of cases² that reported to a clinic for care of their gonorrhea did not stay with the treatment till cured. With penicillin for certain, and for the most part with sulphatherapy the patients finish the treatment. Pre-war statistics were based on small series of cases and the results were uncontrolled. The Army statistics were on large series of cases and in many instances the soldiers were under control so that the results could be relied on. In the past, the clinical picture was, many times, the basis for diagnosis. More and more the Gram stain with typical intracellular diplococci was required and now the culture has been developed to the point where it is reliable. This allows weeding out those non-specific urethritides which do not respond to the specific drugs for the gonococcus. These can be studied by the Urologist and be given the special care they demand. The most debatable point that has been raised is the change in the evaluation of cure. Pelouze in particular has always maintained the desirability of a long period of check³ after an apparent cure; yet when the disease had been cured in a day or week it was hard under war conditions to carry out the old form of testing, so the smears and cultures alone were used with apparently no untoward effects. Recurrences were seen, but they admitted possible new exposures in my experience.

From the literature, random reports follow, giving the results of therapy obtained by various authors. The U. S. War Dept. announced that 96% of 11,000 cases of gonorrhea among service men treated with penicillin have been cured without hospitalization.⁴ The remaining 4% were generally cured by combining sulphathiazole and penicillin treatment. This was in April, 1946, about two years after Sternberg and Turner stated⁵ that of 1,686 cases of sulphonamide resistant gonorrhea, and some of these also resistant to fever therapy, 98% of a group were cured in one day with 160,000 Units, 96% of a second group were cured in a like period with between 80 and 120 thousand Units, and 86% of a third group were cured with 50,000 Units of penicillin intramuscularly. Of 126 failures to one course 85 were re-treated with 100,000 Units with 91.8% cure. The complicated cases required prolonged treatment with a higher dosage. No case in the entire series proved to be resistant.

Of 241 human volunteers Mahoney et al⁶ found that all patients who developed experimental gonorrhea and were treated with penicillin, thereafter achieved clinical and bacteriological cure. Those infected with sulphonamide susceptible strains did likewise after a single course of treatment with sulphonamide. With one exception all patients infected with sulphonamide resistant gonorrhea failed to attain clinical cure with sulphonamides. No cases of persistent carrier state was developed. There was a significantly lower rate of experimental infections in patients with a history of previous gonorrheal infection.

In 1937, Dees and Colston⁷ reported on 47 cases of various types of gonorrhea in males. 36 cases were free of gonococci in less than 5 days. In the same year, Long⁸ stated that clinical, but not necessarily bacteriological cures were 80% and cures in women were 50% greater than before the use of sulpha drugs. Orr⁹ reported that of 104 cases studied 6 were cured in one day, 13 in two days, 25 in three days, 14 in four days, 8 in five days and 25 between the sixth and fifteenth days. 13 cases were failures. 26 out of 30 women were cured.

Pelouze³ was pessimistic and gave a rate of cure of 30% of dispensary cases and 45% of private cases. He was at this time using a very thorough follow up.

Certain cases of gonorrhea affecting the internal organs of women were operated upon by Wharton¹⁰ in 1937, with 90% cure of the disease. He cured (by local methods) 18 of 21 children some of whom had a 12-year follow up.

Wendelberger¹¹ in 1936, stated that malaria of the induced type resulted in 71.8% cure in an average of 36.1 days. Gurnee¹² in the same year said 55% of women would be cured by the hot box alone and more if it were combined with the Elliott method of applying local heat. Parsons et al¹³ with the Kettering Hypertherm gave 5 hour treatments at 107° F. every third day and found 8 of 11 acute cases were cured in 27 days as compared with an identical 8 out of 11 acute cases that were cured in 81 days by local therapy. Of 14 acute complicated cases, 12 were cured in 22 days as compared with 10 similar cases cured out of a group of 14 by 84 days of local therapy. 16 out of 18 chronic prostatitis cases were cured by fever in twenty-eight days as compared with 6 out of 19 similar cases cured in 105 days.

Serum therapy was tried by Spink and Keefer¹⁴ who did not think it of value.

Anwyl Davies¹⁵ reported on the use of anti-toxin evolved from the gonococcus but as he had severe febrile reactions with the treatments it was difficult to evaluate his results. His cures averaged 4 weeks and he only had 3 relapses in 42 cases.

Bertoloty and Herraiz¹⁶ treated 58 cases with vaccine. Cures came mostly in the fifth week, 7% made a radical cure in 1 week, but 72% of cases were still uncured at the end of two months.

Hormones have been tried and advocated but results have not justified their use.

Corbus Ferry anti-virus material was used by Deakin¹⁷ on 52 cases. He felt there was an appreciable rise in complications and felt it was contraindicated in some cases. Wishengrad reported 66% of a series were cured by filtrate as compared with 83% by local methods, but the filtrate cures were more rapid.

The longest treatments are those depending on local medication. Pelouze³ in 1940, commented that of cases that presented themselves

for treatment before the fifth day of the disease 85% would not get posterior involvement, 76% being cured in 6 weeks and 9% in 8 weeks. These cases would not transmit infection at a later date even under the effects of alcohol or sexual excitement. Not so with those seen after the fifth day, for of 183 cases, all but twelve promptly developed posterior involvement and only two finally escaped this complication. Wishengrad² studied 316 out-patients 40% of whom stayed to cure. He found that under local therapy 45 days were needed if there was no discharge at first visit but 95 days if there was posterior involvement. Hibbs¹⁹ reported upon a series of prisoners, 178 completed treatment. The shortest was forty-five days and the longest treatment was 114 days, while the average was 73 days. There were three recurrences and he observed that men on light labor did better than those on hard labor. This review of statistics becomes clearer when tabulated. (Fig. 1)

Not the only advantages of the modern treatments are those just mentioned. With penicillin and sulphatherapy we have eliminated the complex expensive equipment needed for the fever therapy or the local therapy. There is practically no danger of complication or untoward result today. The patient undergoes little discomfort, and no risk of death. The treatment is no longer messy, nor is there a long period wherein the disease is transmissible. No hospitalization is needed. On the other hand, he is the more likely to forget and seek out a new contact. He may not follow the directions and get crystalluria with the sulphatherapy. With the short period of treatment a far larger group will stay till cured, but freed of their symptoms they may be tempted to infect others by not waiting to be checked up after their therapy.

Complications in recent cases are rare, but they were frequent enough 10 years ago. In 1931, Casper²⁰ wrote that 20% of gonorrhea was complicated. Jagie and Schaffner²¹ wrote they found 0.7% of septicemia resulted from Gonococcus infection in cases they treated. Endocarditis has been quoted to comprise 11% of complicated cases.²² Gonorrhea can extend locally or by the blood stream in both sexes. It can involve every structure of the urinary tract and be spread to many parts of the body via the blood stream. Local extension in the male

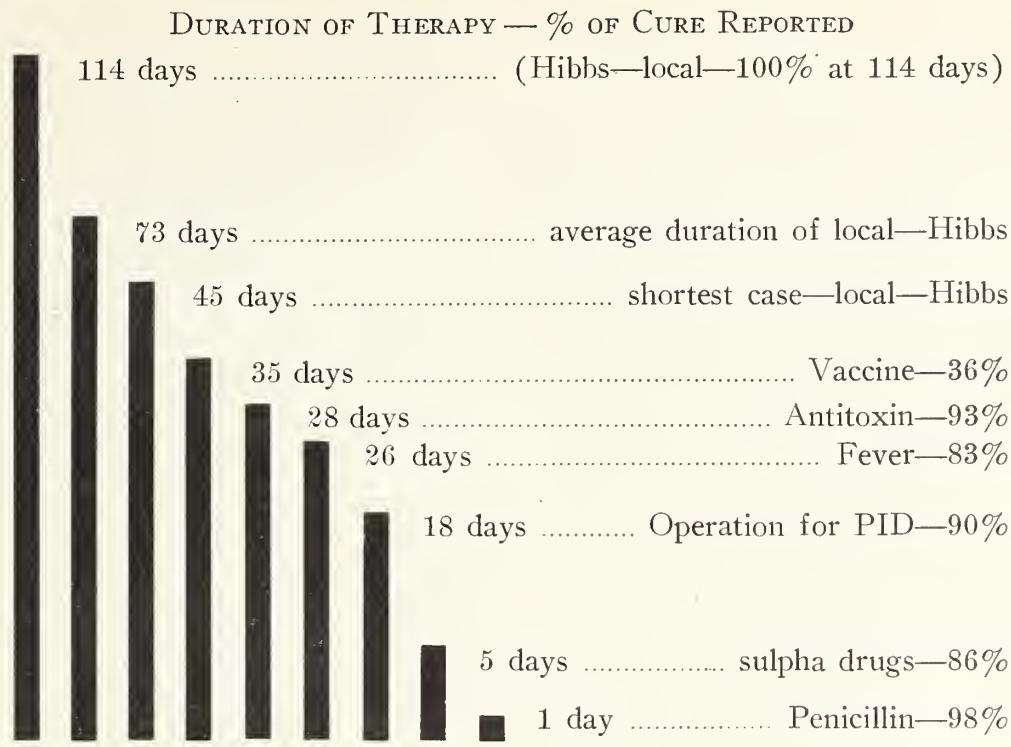


Fig. 1—Summary of results of therapy of gonorrhea

can cause Balanitis, Balanoposthitis, Phimosis, Paraphimosis, Folliculitis, Chordee, Periurethral Abscess, Stricture of the Urethra, Fistula of the Urethra, Cowperitis, Extravasation of Urine, Lymphadenitis, Lymphangitis, Prostatitis, Prostatic Abscess, Prostatic Calculi, Seminal Vesiculitis, Epididymitis, Orchitis, Vasitis, Inflammatory Hydrocele, Trigonitis, Cystitis Ureteritis, Pyelitis, and Nephritis. A similar list with the addition of Proctitis may be given for the female. Metastatic extension may occur with resultant Ophthalmia (which is more commonly by contact extension), Septicemia, Endocarditis, Pericarditis, Rheumatism, Polyarticular Arthritis, Exostoses of the Os Calcis, Tenosynovitis, Pleuritis, Meningitis, Phlebitis, Roseola, and Keratoderma Blennorrhagica.^{23, 24}

This impressive list may develop as a result of the natural progress of the disease, usually when untreated, but at times also from too vigorous local treatment. Other factors that have been given are alcoholic excess, sexual stimulation, debilitating illness, heavy exertion, and long rides during the period the patient has active disease. With the exception of possibly carbonated beverages and the spices, and certainly beer and other alcoholic drinks, the diet has little influence on the progress of the disease.

While the complications are really very infrequent when the total number of cases are considered, they are none the less interesting. A colored soldier in his early twenties with a chronic mild untreated gonorrhea had a sudden flare up following alcohol and a chordee developed. Attempting to relieve this at stool, he ruptured the corpora at the base of the penis, causing about an ounce of blood to leak out into the tissues and obstruct the lymphatics. The already black skin took on a violaceous hue and the organ had swollen to the size of a quart milk bottle when seen some twelve hours later. Proximal to the rupture the tissues seemed to be normal. The blood seemed to be clotted already, so expectant treatment was given, from which he obtained a recovery perfect in every respect other than the thickening at the site of the rupture.

A white soldier turned into the hospital with a stubborn case of gonorrhea for which we gave sulphatherapy, local therapy, and finally fever therapy with only temporary improvements in the heavy discharge. He developed an arthritis and an epididymitis about one month after the treatment had started and shortly thereafter his fingers and toes became sore at the tips. A skin consultant confirmed a diagnosis of Keratoderma Blennorrhagica. At this point penicillin became available and 100,-

000 Units were tried. There was a prompt improvement in all the symptoms for about a week and then they recurred. The dosage was repeated, but although the condition seemed to be quieted he lost many of his nails and was returned to the U. S. and lost sight of.

Case III was that of a young white married woman who was referred to me by an orthopedic specialist when he found I was treating her husband for Chronic Gonorrhea. She had no symptoms or signs of the genital area when seen, though irritation had been present earlier. She did have two swollen painful ankles on which she was unable to stand. Although the genital smears were negative for the Gonococcus and no culture was obtained, I felt she probably should be treated for Gonorrheal Arthritis with sulphathiazole. At once the swelling and the pain were relieved and she was able to bear weight at the end of a week when the course was finished. Although the functional result was satisfactory she still had thickened ankles when last seen.

Case IV was a white American fishcutter in his late twenties who had a history of acute gonorrhea five years before. For the last three years he had noted a progressive diminution in his urinary stream but had not had retention. Just before he entered the hospital he noted a painful swelling in his perineum without any particular fever. He had never had any trouble with his bowels. He presented a brawny swelling in the midline with no particular discoloration over it. This was very tender and warm. It did not seem to be close to the rectum. Wet dressings caused it to be fluctuant in two days and it was opened evacuating foul smelling pus and some urine. Attempt to divert the urinary stream by catheter disclosed the presence of an urethral stricture which was dilated by progressively larger catheters. The fistula gradually closed while the patient was under treatment with sulphathiazole and penicillin but he had several relapses during which there recurred perineal leakage of urine. The prognosis is that this is likely to continue until such time as surgery is done.

Case V was a 28-year-old white male who came to the hospital in acute retention. He had been treated for acute gonorrhea, while ambu-

latory and working hard, by sulphathiazole. The discharge suddenly stopped and the painful retention set in. The prostate was large, boggy, but not fluctuant, so he was put on an indwelling catheter with relief of his symptoms. Heat was applied to the perineum but for several days the prostate continued to be boggy and extend beyond the examining finger rectally. On changing the catheter however, creamy pus was encountered, apparently of prostatic origin. However, he could not void and the abscess could not be evacuated by gentle pressure rectally. Operation (perineally) was done two days later with the release of over an ounce of pus and an immediate relief of the retention. He promptly healed without complication and did not return after discharge from the hospital.

It has been claimed that the end result of a healed Gonorrheal Prostatitis may be fibrosis with the formation of a median bar obstruction of the vesical neck. The following case seems to lend credence to this. Lester C. had Gonorrhea eight years ago and was treated with the usual local therapy and sulphathiazole. Prostatic massages had been given. There had followed a mild urinary frequency and some burning on urination since. For the three months prior to his admission to the hospital the symptoms had increased and occasional dribbling had set in. He did not drink nor had he had excess intercourse prior to admission but he had worked hard the day before a severe exacerbation of his complaints occurred. On admission the prostate was enlarged and boggy. This seemed to improve with regular massage until the seventeenth day when the left thigh began to swell. Phlebitis of the iliac veins was diagnosed so heparin was given, thereby keeping the coagulation to less than 50% of normal until the edema subsided. He was also kept on catheter drainage. About one month after the onset of the complication of therapy and two weeks after the subsidence of the edema he was cystoscoped under spinal which showed a median bar formation and multiple diverticuli of the bladder. Subsequent to the removal of 5 Grams of tissue the patient was able to void comfortably and could be considered cured at least for the present.

Whereas Strictures of the urethra used to be common they are not so often seen now as to

cause the milder ones to be readily recognized. A young colored male was seen several times by a doctor for vague urinary complaints, which just prior to admission to the hospital became more severe so that he had to strain to void and the burning became intensely painful in the perineum. Edema and discoloration in the perineum and extending up on the abdomen were present when the patient was first examined. Extravasation of the urine was at once diagnosed with immediate operation to release the urine and establish drainage via multiple incisions and by cystostomy. The tissues were gangrenous even with the short history and the course followed the textbook type with ultimate recovery. While the patient did not have Gonorrhea at the time of his admission he gave a history of many untreated urethral discharges in the past which simulated a specific infection.

The last case is of a man in his fifties who was sexually promiscuous and had had previous gonorrhea. He had an Urethral Stricture three years ago which was dilated. A Prostatic Abscess developed about the same time and this was drained surgically. Contrary to advice he took no treatment post operatively. Two years ago increasing dysuria set in accompanied by progressive incontinence, for which he was

forced to use pads and a cotton plug under the foreskin. When first seen by me he had a deformed flattened glans and a hard prostatic mass. Cystoscopy was insisted upon after a calculus was found to be present on a plain film of the pelvis. It was found the urethra was acutely inflamed for its whole length with a hard, stony elevation in the prostatic portion. The bladder seemed inflamed but could not be well visualized apparently due to the prostatic calculus limiting the excursion of the cystoscope. The stones were three in number, faceted so as to appear one, and too large to remove from the prostatic fossa cystoscopically, but were later removed by perineal section. The films were of such interest in this case they are shown as figures two and three. The former showing the calculus separated in three parts following the cystoscopy and the latter showing the cystogram following the operation. It will be seen the bladder is very small and the ureters are filled with reflux dye. Apparently the beds from which the calculi were removed had not completely filled with granulations. The patient has been apparently cured of his major complaint of urinary leakage, but pyuria and frequency are likely to continue for some time.

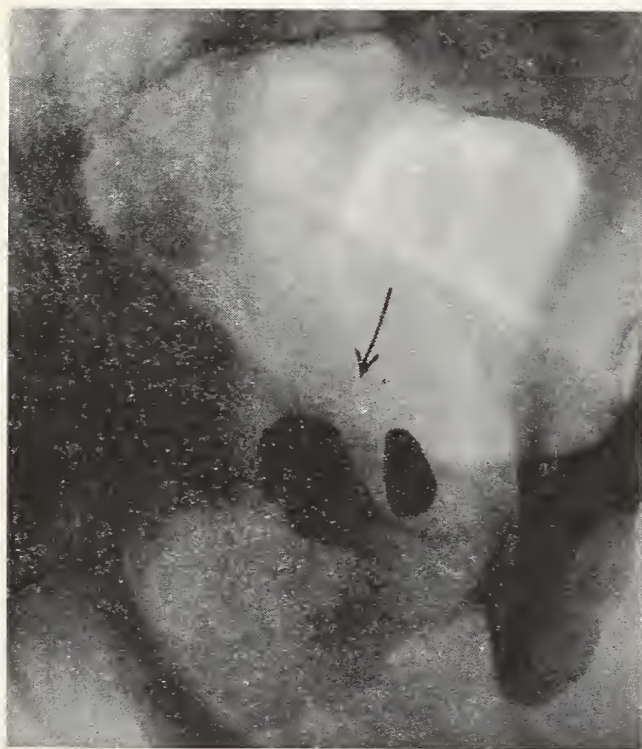


Fig. 2



Fig. 3

SUMMARY

Statistics on the results of various treatments for Gonorrhea have been presented which, by no means complete, do give an idea of the improvement in therapy of Gonorrhea. A review of the complications of Gonorrhea, once more commonly seen, but now quite rare, has been made. Interesting case histories from my own experience have been briefly outlined, showing the variety of the complications of the disease, and that they may develop after the disease has been apparently cured and no diplococci can be found.

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The average patient has a great deal of confidence in his private physician and expects him to treat tuberculosis much as he would accept other family medical emergencies. Psychological factors make this desirable and practical considerations make it feasible, especially if the physician possesses sufficiently broad understanding of tuberculosis and modern therapeutic methods. Sanatorium care is no longer the only method of tuberculosis control. Many minimal lesions and a limited number of inactive advanced lesions are amenable to outpatient supervision under strict medical care. This supervision and care can often be rendered by the alert general practitioner who possesses modern knowledge of the diagnosis and treatment of tuberculosis.—Herman E. Hilleboe, M. D., U. S. Public Health Service.

It can be assumed that no people have a racial characteristic which makes them peculiarly susceptible to tuberculosis because of genotypic traits. Lack of exposure of any group, regardless of race, produces an extremely high incidence of tuberculosis which runs a more acute course when first introduced. After prolonged exposure, native immunity is manifest, with survival of stock resistant to the disease, and with a concomitant decline in the amount of clinical tuberculosis and the approach of saturation point of tuberculinization. With this there is noted a relative increase in pulmonary forms and an accentuation of chronicity.—J. R. McGibony, M. D., and A. W. Dahlstrom, M. D., *Am. Rev. Tbc.*, Aug., 1945.



JOHN O. PIPER, M. D.

President Maine Medical Association

1946 - 1947

John O. Piper, M. D.

John O. Piper, M. D., of Waterville, assumed his duties as President of the Maine Medical Association at the close of the Ninety-second Annual Session at Poland Spring, June 25th, 1946. It is needless to elaborate on Doctor Piper's qualifications for this office because he is known to all members of the Association, either personally or through his untiring efforts on behalf of the Association.

He was born at Bingham, Maine, July 14, 1881. He was graduated from Bates College in 1903, and received his medical degree from McGill University in 1910. He later took courses in Internal Medicine at the University of Pennsylvania and the New York Post-Graduate School.

Doctor Piper has practiced in Waterville since 1924. From the time of his graduation until 1924 he was located in Solon, Maine.

During World War I he served as a 1st Lieutenant in the Medical Corps of the U. S. Army.

Doctor Piper is a Fellow of the American College of Physicians, a Fellow of the American Medical Association, a Diplomate of the American Board of Internal Medicine, and a member of the New England Heart Association, the Maine Medical Association, and the Kennebec County Medical Society. He served as Councilor for the Fourth District of the Maine Medical Association for four years, and Council Chairman one year.

With the problems confronting the medical profession at the present time the Association is indeed fortunate to have as its President a man of Doctor Piper's calibre.

Maine Medical Association Officers Elected

at the

92nd ANNUAL SESSION

POLAND SPRING

JUNE 23, 24, 25, 1946



Stephen A. Gobb, M. D.
Sanford
President-elect



Norman E. Gobb, M. D.
Galais
Councilor, Fifth District, 1949



Forrest B. Ames, M. D.
Bangor
Councilor, Sixth District, 1949
Council Chairman, 1946-1947

The President's Page

It would seem that we have become awakened to the fact that the Maine Medical Association is really big business and we must go on in the way we have mapped out for ourselves.

I would like to quote to you from our Constitution and By-Laws the following:—

“The purposes of this Association are to promote the science and art of medicine, the protection of public health, and the betterment of the medical profession.”

We can see from the above quotation, that the reason for the existence of the Maine Medical Association is to help to make our profession better, and hence to be able to serve the public in the best manner possible.

With the changing order of things in this world and in our own country, there have come into vogue several forces that tend to deteriorate the type of medicine we have been taught to practice. However, I am sure that we are becoming aware of this, and taking steps to overcome it.

We know that our young men are anxious to perfect themselves in their profession. This is evidenced by the fact that a large portion of them are taking post-graduate work in the various medical schools and hospitals of our country.

I know that they are looking to the Medical Association for real assistance.

We know no better way to be of assistance to them than to improve our very high standards of learning and to live up to those standards in our daily practice.

We also know that no other group or type of people who attempt to practice the art of healing has begun to do the things for humanity that the medical profession has done and continues to do.

With this belief that the real reason for the existence of the Medical Association is to promote and foster the science and art of the practice of medicine, we must work in harmony for these principals, then we shall prevail in spite of all obstacles.

JOHN O. PIPER, M. D.,

President, Maine Medical Association.

Editorials

The Ninety-second Annual Session in Review

The Ninety-second Annual Session of the Maine Medical Association was, according to all reports, one of the most successful meetings in the history of the Association; even exceeding the hopes of those responsible for the various phases of the program. There were 322 members and 152 guests registered.

The meeting started off with a burst of enthusiasm on Sunday, June 23rd, with the First Meeting of the House of Delegates, and continued on in the same vein through the annual banquet Tuesday evening, and even into Wednesday morning when last minute departers were still commenting on the wonderful time they had had.

At the meetings of the House of Delegates routine business was taken care of in routine manner, and many problems confronting the Association were discussed and settled—including the following items approved at the Second Meeting of the House of Delegates on Monday, June 24th:

1. That Study of Prepaid Medical Care Plans be continued by a committee to be appointed by the President. That this committee be authorized to take steps necessary to secure an Enabling Act which would empower the Maine Medical Association to adopt a representative insurance plan when such can be formulated.
2. That the House of Delegates of the Maine Medical Association go on record as in favor of the establishment of a Medical School in Maine as soon as feasible. That a committee be named by the president to carry on further plans.
3. That the House of Delegates of the Maine Medical Association express approval of the efforts of the National Physicians' Committee in opposition to the passage of any Federal Legislation which would bring about governmental control of the practice of medicine.
4. The approval of an increase in the dues for the year 1947 to \$35.00 per member.

5. That the emergency agreement between the Council, representing the State Association, and the Associated Hospital Service, Inc., of Maine be held in abeyance subject to new conferences between the Veterans' Affairs Committee of the Maine Medical Association; proper Officials of the Veterans' Administration, and the Associated Hospital Service of Maine. It is understood that any new agreement will give proper representation and authority to the Maine Medical Association.
6. That the following budget for 1946-1947 be approved:

President's Expenses	\$ 300.00
Salaries:	
Secretary-Treasurer-Editor	2,200.00
Assistant Secretary	2,000.00
Office Expense	1,000.00
Committees:	
Medical Advisory	500.00
Graduate Education	100.00
Special Committees	100.00
State Delegates and Council	250.00
Delegate, A. M. A. Annual Session	250.00
Annual Session, M. M. A.	100.00
Council, New England Medical Societies	100.00
Appropriation to JOURNAL for expenses not covered by advertising	500.00
Estimated cost of employing Full-Time Executive Secretary	10,271.87
Total	\$17,671.87

Thirty-two of the thirty-five county delegates were present at this meeting of the House of Delegates, and it is perhaps interesting to note here that they voted unanimously in favor of the increase in State dues from \$12.00 per year to \$35.00 per year. The Proceedings of the House of Delegates will be published in the JOURNAL, beginning with the August issue.

Stephen A. Cobb, M. D., of Sanford, was elected President-elect at the General Session

Monday afternoon. According to the records of the Association, Dr. Cobb is the first member to be re-elected President-elect, as he was elected to this office at the annual meeting in 1942 and shortly thereafter called to duty in the U. S. Army Medical Corps. More about "Steve" elsewhere in this issue.

Forrest B. Ames, M. D., of Bangor, was re-elected Councilor for the Sixth District, and Norman E. Cobb, M. D., of Calais, elected Councilor for the Fifth District, at the Second Meeting of the House of Delegates. At this same meeting, Thomas A. Foster, M. D., of Portland, was re-elected Delegate to the American Medical Association for two years.

Standing Committee Chairmen and Members, as appointed by the Nominating Committee and approved by the House of Delegates, appear elsewhere in this issue. Members of the Special Committees, appointed by the President, Dr. Piper, in accordance with the By-Laws, are also published in this issue.

At a meeting of the Council held Tuesday, June 25th, Dr. Ames was re-elected Chairman of the Council; Frederick R. Carter, M. D., of Portland, was re-elected Secretary-Treasurer of the Association, Editor and Business Manager of THE JOURNAL OF THE MAINE MEDICAL ASSOCIATION; and Esther M. Kennard, of

Portland, re-elected Assistant Secretary of the Association and Assistant Business Manager of the JOURNAL.

The Scientific Program, as promised, left nothing to be desired. It is hoped that all papers presented at the conferences, scientific sessions, and evening meetings will be submitted for publication in the JOURNAL in order that those members not privileged to attend can benefit by them, and those members present have them for reference.

The informal re-union for members returned from military service Sunday afternoon was a gala occasion. The presentation of corsages to the wives of members receiving fifty-year medals added a festive touch to the annual banquet Tuesday evening. Get-togethers—here and there—between business and scientific sessions, and after dinner dancing, brought many old friends together for the first time in several years.

Thirty medical and surgical supply companies made up the largest exhibit in the history of the Association and are to be commended for their support of the Association.

The Ninety-second Annual Session thus becomes history in the records of the Association, and in the pages of the Association's JOURNAL.

Stephen A. Cobb, M. D., President-elect

Stephen A. Cobb, M. D., of Sanford, was elected President-elect of the Maine Medical Association at a General Assembly held Monday afternoon, June 24th, 1946, during the 92nd Annual Session at Poland Spring. This is the second time the members of the Association have so honored Doctor Cobb as he was elected to this office in 1942, just prior to being called to duty in the Medical Corps of the U. S. Army. This in itself is proof that the members of the Association have faith in Doctor Cobb's ability to fill this office.

Doctor Cobb was born in Gardiner, Maine, December 9, 1887. He was graduated from Gardiner High School in 1905, Bates College

in 1909, and received his medical degree from Harvard Medical School in 1914. He started his practice in Sanford in 1915.

He is a member of the New England Surgical Society, the American College of Surgeons, the Royal Society of Medicine, a Fellow of the American Medical Association, and a member of the Maine Medical Association and York County Medical Society.

He has served on various committees of the Maine Medical Association including the Scientific Committee for three years, one year as Chairman, and as Councilor for the First District for three years, the last of these as Chairman.

Doctor Cobb began his career in the Medical Corps of the U. S. Army during World War I. Starting as a 1st Lieutenant, he spent one year in France with the A. A. F. and came out a Captain. In September, 1942, he was again called to duty as Chief of Surgical Service with the 67th General Hospital, and was later ap-

pointed Executive Officer of a U. S. Army General Hospital in England. He was stationed in England three years, and held the rank of Colonel on his release from service.

On behalf of the members of the Association we hereby extend to Doctor Cobb congratulations and best wishes.

*Dr. Thomas A. Foster, Toastmaster**

Dear Tom:

During the past two years I have come to have a very profound respect for what Archie of Duffy's Tavern calls, "Aunt Jemima of the Pectoralis" (Angina Pectoris). My doctor tells me to "honor it," which is precisely what I am doing by remaining away from the Hospital Day dinner. I had hoped to be able to attend and, if given an opportunity, say a word about two persons who were very conspicuous in this hospital in my time as intern (1904-1905), whose names are almost never spoken even in hospital circles today, namely Doctor Charles Dennison Smith, the hospital director, and Miss Amelia Longfellow Smith, the superintendent of nurses. They were not related to each other, neither did either one claim kinship with the notorious Joseph Smith of Mormon fame, or with Captain John Smith of Pocahontas renown, or with the good old Smith Brothers, or with Alfred Emmanuel Smith, of whose wife it has been written,

"She eats her peas with honey,
She's done so all her life.
It makes the peas taste funny,
But it keeps them on her knife."

No, Charles and Amelia stood squarely on their own feet and they certainly shaped the course of events around here, — Charles, or C. D. as he was familiarly known, for about twenty years, and Amelia, for approximately eighteen years.

In those days the hospital beds numbered one hundred fifty. C. D. was professor of physiology in the Medical School and superintendent of the hospital with one clerk and an adolescent girl to answer the wall-set telephone.

* Letter read by Dr. Thomas A. Foster, who acted as Toastmaster for Dr. Gehring at the Hospital Day Dinner, at the Maine General Hospital, May 10, 1946.

** Edwin Motley Fuller, Jr., of Bath, Maine.

He not only managed to do both jobs well but he found time to gum-shoe about the institution at night, presumably to see whether or not the lads and lassies (internes and nurses) were comporting themselves with dignity. Of course, they always were—at least by the time he hove in sight. His other disconcerting habit was to arrive in the room occupied by Mot Fuller** and myself about midnight, seat himself in a rocker, light up one of George Frye's free cigars and proceed to recount his experiences in the Maine woods as a deer hunter. On two such occasions, Mot deliberately undressed before him and turned in. Charles took no offense, nor did he take the hint, but calmly finished his cigar before proceeding on his rounds. In his last illness he said to me, "the directors of this hospital have always expected me to make bricks without straw, and it can't be done."

As for Amelia, she never sneaked up on anybody. She always announced her approach by the rattle of a large bunch of keys carried in her hand or at her waist.—Her students respected her but stood in awe of her. She demanded implicit obedience and, as a rule, got it. When, however, in her opinion a nurse was inexcusably delinquent, she would either read the riot act to her in her office, or deprive her of her cap for a period, or send her home for a rest, or summarily dismiss her. With Miss Smith, dismissal was final, although it ultimately proved to be her own undoing. Colloquially, speaking, she had fired a girl. A wealthy friend of the pupil appealed to the directors for her reinstatement. The directors, in turn, reasoned with Miss Smith but to no avail. She resigned forthwith and the girl was reinstated. It should be added in passing that, to the discomfort of the directors, when the rich interceder died, he didn't leave the hospital a cent.

Nominating Committee Report

The report of the Nominating Committee as presented and accepted at the Second Meeting of the House of Delegates at the 92nd Annual Session of the Maine Medical Association, Poland Spring, Maine, June 24, 1946.

Nominating Committee

First District:	Charles W. Kinghorn, M. D., Kittery
Second District:	Ralph A. Goodwin, M. D., Auburn
Third District:	Warren E. Kershner, M. D., Bath, Chairman
Fourth District:	George E. Young, M. D., Skowhegan
Fifth District:	Walter N. Miner, M. D., Calais
Sixth District:	Ernest T. Young, M. D., Millinocket

Standing Committees

Scientific Committee

Dexter E. Elsemore, M. D., Dixfield (One Year),
Chairman
Francis A. Winchenbach, M. D., Bath (Two Years)
Martyn A. Vickers, M. D., Bangor (Three Years)
Theodore E. Hardy, M. D., Waterville (Four Years)
The Secretary, ex-officio

Committee on Medical Education and Hospitals

Stephen S. Brown, M. D., Portland (One Year),
Chairman
David E. Dolloff, M. D., Biddeford (Two Years)
Edward L. Herlihy, M. D., Bangor (Three Years)

Medical Advisory Committee

Allan Woodcock, M. D., Bangor, Chairman
Carl M. Robinson, M. D., Portland
Frank A. Smith, M. D., Westbrook
Philip L. Gray, M. D., South Brooksville
C. Harold Jameson, M. D., Rockland
Oscar F. Larson, M. D., Machias
Forrest B. Ames, M. D., Bangor
The Secretary, ex-officio

Legislative Committee

The President, ex-officio
The President-elect, ex-officio
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Public Relations Committee

Frederick T. Hill, M. D., Waterville, Chairman
Roland L. McKay, M. D., Augusta
Henry C. Knowlton, M. D., Bangor
Henry P. Johnson, M. D., Portland
Joseph A. Donovan, M. D., Houlton

Cancer Committee

Julius Gottlieb, M. D., Lewiston (One Year), Chair-
man
Arthur H. McQuillan, M. D., Waterville (Two
Years)
William Holt, M. D., Portland (Three Years)
Magnus F. Ridlon, M. D., Bangor (Four Years)
Forrest B. Ames, M. D., Bangor (Five Years)
Joseph E. Porter, M. D., Portland (Six Years)

Committee on Social Hygiene

Oscar R. Johnson, M. D., Portland (One Year),
Chairman
Storer W. Boone, M. D., Presque Isle (Two Years)
Carl E. Blaisdell, M. D., Bangor (Three Years)

Publicity Committee

Frederick R. Carter, M. D., Portland, Chairman
President, John O. Piper, M. D., Waterville
President-elect, Stephen A. Cobb, M. D., Sanford

Special Committees

As appointed by the President, John O. Piper, M. D., Waterville, in accordance with the By-Laws, Chapter V, Section I.

Committee on Graduate Education

Frederick T. Hill, M. D., Waterville, Chairman
William V. Cox, M. D., Auburn
Eugene H. Drake, M. D., Portland
Magnus F. Ridlon, M. D., Bangor
George E. Young, M. D., Skowhegan
Joseph E. Porter, M. D., Portland
Wilfrid J. Comeau, M. D., Bangor

Tuberculosis Committee

Francis J. Welch, M. D., Portland, Chairman
Walter R. Gumprecht, M. D., Bangor
Loren F. Carter, M. D., Presque Isle
Charles D. Cromwell, M. D., Fairfield
Lester A. Adams, M. D., Hebron
George E. Young, M. D., Skowhegan
Rufus E. Stetson, M. D., Damariscotta
Herbert S. Everett, M. D., St. Stephen, N. B.

Committee on Maternal and Child Welfare

Thomas A. Foster, M. D., Portland, Chairman
Clair S. Bauman, M. D., Waterville
Leroy C. Gross, M. D., Auburn
Alice A. S. Whittier, M. D., Portland
Virginia C. Hamilton, M. D., Bath
Theodore M. Stevens, M. D., Portland

Committee to Survey Hospital and Medical Care

S. Judd Beach, M. D., Portland, Chairman
Franklin A. Ferguson, M. D., Portland, Secretary
Gerald R. Smith, M. D., Ogunquit (First District)
Currier C. Weymouth, M. D., Farmington (Second District)
Warren E. Kershner, M. D., Bath (Third District)
Edward H. Risley, M. D., Waterville (Fourth District)
Willard H. Bunker, M. D., Calais (Fifth District)
Clyde I. Swett, M. D., Island Falls (Sixth District)
Roscoe L. Mitchell, M. D., Augusta (Department of Health and Welfare)

Committee to Investigate Collection Agencies

Adam P. Leighton, M. D., Portland

Committee on Industrial Health

Albert P. Royal, M. D., Rumford, Chairman
Isaac M. Webber, M. D., Portland
Edwin M. Fuller, M. D., Bath
Allan Woodcock, M. D., Bangor
Roscoe L. Mitchell, M. D., Augusta
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Committee on Conservation of Vision

Howard F. Hill, M. D., Waterville, Chairman
S. Judd Beach, M. D., Portland
Walter J. Gilbert, M. D., Calais
Warren E. Kershner, M. D., Bath
William R. McAdams, M. D., Portland

Amy W. Pinkham Fund Committee

Thomas A. Foster, M. D., Portland, Chairman
Virginia C. Hamilton, M. D., Bath
Albert M. Carde, M. D., Milo
Clair S. Bauman, M. D., Waterville
P. L. B. Ebbett, M. D., Houlton
John F. Hanson, M. D., Machias
Carl H. Stevens, M. D., Belfast

Committee to Formulate Plans for Re-opening of Medical School of Maine

Edward L. Herlihy, M. D., Bangor, Chairman
Clyde I. Swett, M. D., Island Falls
Harvey C. Bundy, M. D., Milo
Frederick T. Hill, M. D., Waterville
Stephen A. Cobb, M. D., Sanford
Adam P. Leighton, M. D., Portland
Eugene H. Drake, M. D., Portland
Eugene E. O'Donnell, M. D., Portland
Wallace E. Webber, M. D., Lewiston
Leverett D. Bristol, M. D., Augusta (Commissioner of Health and Welfare)

Veterans' Affairs Committee

Harold E. Pressey, M. D., Bangor, Chairman
Elton R. Blaisdell, M. D., Portland
Currier C. Weymouth, M. D., Farmington
Francis A. Winchenbach, M. D., Bath
Edward H. Risley, M. D., Waterville
Philip O. Gregory, M. D., Boothbay Harbor

COUNTY SOCIETIES**Androscoggin**

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 Secretary, Wedgwood P. Webber, M. D., Lewiston

Aroostook

President, Clyde I. Swett, M. D., Island Falls
 Secretary, Thomas G. Harvey, M. D., Fort Fairfield

Cumberland

President, Elton R. Blaisdell, M. D., Portland
 Secretary, Joseph E. Porter, M. D., Portland

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President, Harry Brinkman, M. D., Farmington
 Secretary, James W. Reed, M. D., Farmington

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 Secretary, James H. Crowe, M. D., Ellsworth

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President, Arch H. Morrell, M. D., Augusta
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Waldo

President, Carl H. Stevens, M. D., Belfast
 Secretary, R. L. Torrey, M. D., Searsport

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President, John F. Hanson, M. D., Machias
 Secretary, John Young, M. D., Jonesport

York

President, Carl H. Richards, M. D., Alfred
 Secretary, C. W. Kinghorn, M. D., Kittery

County Society Notes**Cumberland**

The last meeting of the Cumberland County Medical Society was held at the Mercy Hospital, Portland, Maine, on May 24, 1946; Dr. Elton R. Blaisdell presiding. Dr. O'Donnell's committee announced that it had met with the representatives of the Western Maine District Nursing Association with regard to discussing the proposed Central Registry for nurses. He stated that such a registry would cost in the vicinity of \$3,000 annually, the purposes being: (1) To make it easier for physicians to secure nurses when needed; (2) Their duties would be more clearly defined; (3) To furnish a more equitable distribution of nurses. It was moved by Dr. Hawkes that this society indicate its interest in this registry, and also state that we would like to be kept informed regarding its progress. Dr. Adam Leighton, President of the Maine Medical Association, then outlined the program to be presented at the June meeting of the association; he emphasized that we should carefully consider any prepayment plan for medical care in Maine. He brought out the need for an executive secretary for the Maine Medical Association, which would mean an increase in our annual dues. The society voted unanimously that it was in favor of the project of sponsoring a medical school in the State of Maine. The president appointed the following committee to bring in resolutions on the death of Dr. Benjamin Foster: Dr. John Hamel, Chairman, Dr. S. Judd Beach, and Dr. O. R. Johnson. There were four new doctors unanimously elected to membership in the Society, namely, Drs. George Herman Derry, Arthur A. Nichols, Robert Lorimer, and Richard J. Goduti, all of Portland.

The principal speaker of the evening was Dr. Kenneth J. Tillotson, Psychiatrist-in-Chief of the McLean Hospital, Waverly, Massachusetts. His subject was "Treatment of the Psychoses." His paper was presented in a most excellent manner, and awakened in those present a new interest in the treatment of the psychoses. Newer methods which have been found effective in treating psychoses are principally two in number: The electric shock treatment, and the surgical interruption of the commissural fibers between the thalamus and the frontal lobe. The results in shortening the duration of hospitalization are most interesting and worthy of note. Of the cases of manic depressive psychosis who have come into the McLean Hospital in the last four years, at least 95% have been cured with the electric shock treatment. He emphasized also that patients so treated were less liable to have future attacks than those showing spontaneous remission without any treatment. Of the schizophrenics, many of whom were treated with insulin treatment and then by electric shock treatment, about 68 to 69% showed remissions. A similar group not treated in this manner showed only about 20 to 25% remissions. Encouraging results have also been obtained in the more agitated type of cases by bilateral pre-frontal lobotomy. In all the cases operated up to date, none had been in the hospital less than 5 years; some had been there as long as 30 years. Of this group treated surgically, 50% were able to leave the hospital, while 25% were improved and removed to a quieter convalescent ward. Dr. Tillotson feels that if this operation were carried out on this type of case at an earlier time, before degenerative changes have occurred, better and more satisfactory results might be obtained. Another point worthy of note at this time is that the average pa-

Continued on page 204

Necrology

*Benjamin Bennett Foster, M. D.,
1881-1946*



By the death of Doctor Benjamin Bennett Foster, the Cumberland County Medical Society has lost a loyal and valued member.

Dr. Foster was born in Portland on October 7, 1881, son of the late Moses H. and Kate D. Foster. He attended the local public schools and later the Vermont Episcopal Institute. His medical education was obtained at the Jefferson Medical College at Philadelphia and the College of Physicians and Surgeons at Boston, from which latter institution he received the degree of Doctor of Medicine in 1906. He served internships in the Boston City and Emergency Hospital and the Vanderbilt Clinic in New York City, and at this clinic he did his post-graduate studies in dermatology and syphilology.

From early in his career, Dr. Foster confined his practice to dermatology and in 1918 organized a syphilis and dermatological clinic at the Maine Ear and Eye Infirmary, which became one of the largest and best organized clinics in northern New England. This clinic was among his chief interests and he gave

unsparingly his time and effort up to the beginning of his last illness in March, 1945. Dr. Foster also conducted a weekly skin clinic at the Edward Mason Dispensary for many years. He was chief of the department of Dermatology and Syphilology at the Maine General Hospital, retiring in the fall of 1945 by reason of ill health.

He was a member of Alpha Kappa Kappa Fraternity, the New England Dermatological Society, the Portland Medical Club, the Cumberland County Medical Society, the Maine Medical Association, the Aegis Club, and was a Fellow of the American College of Physicians. Surviving him are his widow, Mrs. Louisa Whelan Foster; a daughter, Mrs. Walter Files, Jr.; and a sister, Mrs. Harold J. Everett.

Dr. Foster will be genuinely missed, not only by his professional colleagues who will long remember his kindly and expert consultation in difficult cases, but also by innumerable patients who were benefited by his efficient and charitable treatment.

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Impregnated with Sulfur and Soap

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Complete directions with each package

TREATMENT

PROPHYLAXIS

SULFUR FOAM APPLICATORS



Treasurer's Report

To the Officers and Members of the Maine Medical Association:

The books of the Association and JOURNAL were closed and audited as of May 31, 1946, by Jordan and Jordan, Accountants and Auditors, Portland, Maine, who "found the same complete and correct in all details of record," and submitted the following statements "properly drawn up to show the true financial position of the Association, May 31, 1946, and the income and expense for the year under review."

FREDERICK R. CARTER, M. D.,
Treasurer.

BALANCE SHEET, MAY 31, 1946

ASSETS

Cash in Banks	\$14,925.59
Accounts Receivable:—	
Dues	\$300.00
Advertising	559.91
Sundry	18.00
	877.91
Securities	9,765.00
Furnishings and Equipment	1,092.59
Deferred Expense — Annual Meeting	2.00
Trust Fund Investments	2,436.21
Total Assets	<u>\$29,099.30</u>

LIABILITIES, CAPITAL AND TRUST FUNDS

Withholding Taxes	\$ 57.60
Deferred Income:—	
Convention Exhibit Space	420.00
Advertising	34.94
	512.54
Capital Account:—	
Balance June 1, 1945	\$25,175.09
Deduct:—	
Charged off on Fidelity Trust Company Impounded Accounts	\$796.75
Prior Year Accounts — Paid	187.50
	984.25
	<u>\$24,190.84</u>
Add:—	
Revenue in Excess of Expense — One Year	1,959.71
	26,150.55
Trust Funds	2,436.21
Total Liabilities, Capital and Trust Funds	<u>\$29,099.30</u>

TRUST FUNDS AND INVESTMENTS

MAY 31, 1946

Prince A. Morrow Trust:—	
12 shares American Agricultural Chemical Co. (Cost)	\$348.00
Canal National Bank — Savings No. 3905	926.40
	<u>\$1,274.40</u>
Thayer Library Trust:—	
Canal National Bank — Savings No. 3903	1,161.81
Total Trust Fund Investments	<u>\$2,436.21</u>

Prince A. Morrow Fund:—	
Principal	\$554.94
Income	719.46
	<u>\$1,274.40</u>
Thayer Library Fund:—	
Principal	\$1,154.20
Income	7.61
	<u>1,161.81</u>
Total Funds	<u>\$2,436.21</u>

STATEMENT OF REVENUE AND EXPENSE
ONE YEAR ENDED MAY 31, 1946

REVENUE

Dues	\$ 7,962.00
Income from Investments	471.13
C. M. A. B. Advertising	5,411.91
Local Advertising	938.38
Subscriptions and Sales of JOURNALS	14.00
Total Revenue	<u>\$14,797.42</u>

EXPENSES

Salaries:—	
Dr. Carter — Secretary, Treasurer and Editor	\$2,200.00
Mrs. Kennard—Assistant Secretary	2,000.00
Office Assistance	17.00
Travel:—	
President	300.00
Secretary and Councilors	164.24
Office Expenses:—	
Supplies and Stationery	337.95
Postage and Mailing Expense	219.87
Rent	300.00
Telephone	125.13
Light	12.00
Auditing	68.03
Surety Bonds	10.00
Books, Magazines, Periodicals ..	41.75
Repairs — Equipment	17.50
Miscellaneous	20.00
A. M. A. Meeting	161.77
Medical Advisory Committee	521.34
Annual Meeting	229.82
Council of the New England States Medical Societies	100.00
Delegates—New England Medical Societies	41.35
50-Year Medals	72.00
Printing	5,678.08
Plates	176.06

Total Expenses	<u>12,813.89</u>
	\$1,983.53
Accounts Charged Off	23.82
Revenue in Excess of Expense — One Year	<u>\$1,959.71</u>

STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS
ONE YEAR ENDED MAY 31, 1946
Cash in Banks, June 1, 1945 \$12,720.89

RECEIPTS

Received from Dues	\$7,710.00
Income from Investments	471.13
Exhibit Space Rentals	420.00
Subscriptions and Sales of JOUR- NALS	14.00
Advertising	6,324.68
Withholding Taxes	502.90
Final Liquidating Dividend, Fidel- ity Trust Company—Impounded Funds	302.78
	15,745.49
	\$28,466.38

DISBURSEMENTS

Salaries	\$4,200.00
Traveling and Other Expenses	464.24
Office Expenses	1,241.23
A. M. A. Meeting	161.77
Annual Meeting	231.82
Cumberland County Medical So- ciety	18.00
Delegates to New England Medi- cal Societies	41.35
Council of the New England Medi- cal Societies	100.00
Medical and Advisory Committee	521.34
Printing and Plates	5,854.14
Withholding Taxes	519.40

President's Travel Expense :—
Prior Period 187.50
13,540.79

Cash in Banks — May 31, 1946	\$14,925.59
Canal National Bank — Checking Account	\$6,930.02
Canal National Bank — Savings Account	1,729.58
Maine Savings Bank	2,916.85
Portland Savings Bank	2,875.76
First National Granite Bank	473.38
	\$14,925.59

SECURITIES

MAY 31, 1946

BONDS

\$2,000 Commonwealth of Australia, Ext. Loan 30-Yr. 5's, 1957	\$1,960.00
\$3,000 Portland Terminal Com- pany, 1st Mtge. 5's, 1961	3,045.00
\$700 Prudence Bond Corp., 1st Mtge. Coll. Series 6, 5½'s, 1936 (Defaulted)	700.00
\$4,000 U. S. Savings Bonds "G", Due July, 1956	4,000.00

STOCKS

10 Shares Mortbon Corp. of N. Y.	60.00
	\$9,765.00

County Society News—Continued from page 200

tient's stay at the McLean Hospital at the present time is 3 months.

Preceding the business and scientific meeting, a clinic was presented by the hospital staff at 5 P. M., and followed by an excellent dinner in the hospital dining room.

JOSEPH E. PORTER, M. D.,
Secretary.

Forrest C. Tyson, M. D., Superintendent of the Augusta State Hospital for thirty-three years, retired July 1, 1946.

Harry Elkins, M. D., who for many years has been on the Staff of the Augusta State Hospital, has been appointed Acting Superintendent of the Hospital to fill the vacancy caused by Doctor Tyson's retirement.

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JOURNAL
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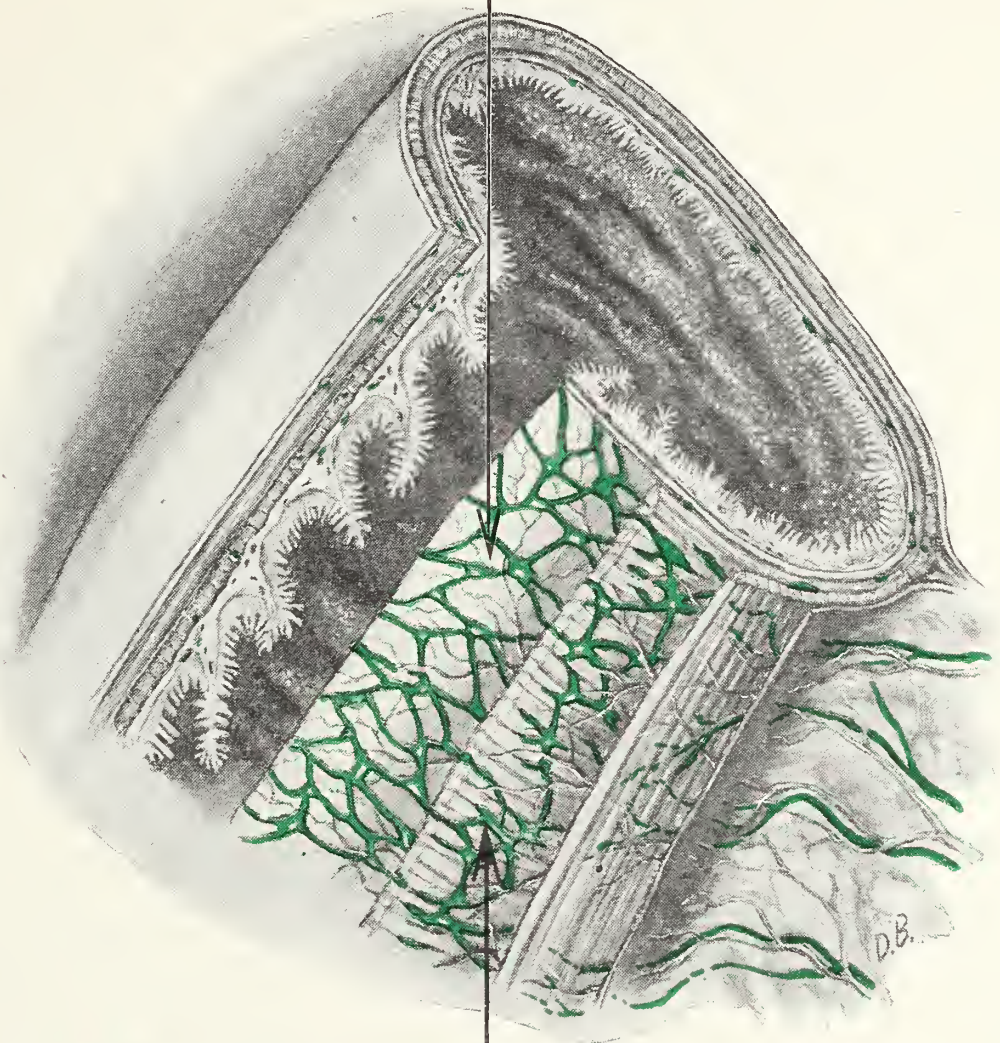
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smoothage—

stimulates the plexus of Auerbach and Meissner by gentle distention of the bowel wall, initiating reflex peristalsis and movement of the fecal mass.

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the highly refined mucilloid of a seed of the psyllium group, Plantago ovata (50%), combined with dextrose (50%) as a dispersing agent—provides smoothage for the physiologic management of constipation.

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searle—

RESEARCH IN THE SERVICE OF MEDICINE





From where I sit by Joe Marsh

Dr. Hollister and the Streamlined House

The other day a construction firm set up an exhibit in the courthouse square. They built a new "house of the future"—and invited folks to come and see it.

Drew quite a crowd—with the women sighing over the shiny kitchen, and the men admiring the new kind of heating unit and the insulation.

All except Dr. Hollister. He looks around a spell and goes home. When I get there, he's sitting before his old Dutch fireplace, with his feet on the screen, and holding a mellow glass of beer in his hand.

"You know," he says, "it takes a heap of living to make a home."

Looking around, I see what he means. A room crowded with memories of a life well spent—and the friendly habits of a happy home, from the old-fashioned fireplace, to a mellow glass of beer with friends. From where I sit, those things do more to make a home than modern streamlined gadgets.

Joe Marsh

*Dr. Thomas A. Foster, Toastmaster
Continued from page 197*

Except for a few lectures from men on the staff, Miss Smith had no assistants, paid or unpaid, with or without college degrees. She did all the teaching and, in my humble opinion, no better trained nurses ever graduated from this hospital than those who left under her aegis.

Without previous training, C. D. and Amelia proved to be able executives in their respective spheres. The hospital never had more loyal ones.

I often wonder what would be their reactions were they to return today. About four times as many hospital days as in their time but with at least ten times the help to do the work; the pavilion with its multiplicity of operating rooms, its accident ward, its out-patient department; the splendidly equipped pathologic and X-ray laboratories; the record room where, thanks to the American College of Surgeons, more paper is wasted in one day than we wasted in six months; and, last but not least, the swarm of clerks in the outer office where they had but one; — all these things might well make them feel, but in reverse, so to speak, as did the late Irvin Cobb when he first saw Fanny Hurst after the latter had so drastically reduced her weight and narrowed her beam that her best friends at first failed to recognize her. He had followed this woman for several blocks along Fifth Avenue, not being sufficiently sure that it was Miss Hurst to accost her. She had apparently been aware of his presence behind her for some time when, suddenly, she turned about and said, "Aren't you going to speak to me?" Astonished at her appearance, she had become so thin, Cobb remarked, "Why, are you Fanny Hurst?" "Yes," said she, "the same old Fanny Hurst." "No, no," said he, "The same Hurst I will concede but definitely not the same Fanny."

My best wishes for a successful meeting and my kindest regards to all present.

Cordially as ever,

E. W. GEHRING.

May 10, 1946.



The Journal of the Maine Medical Association

Volume Thirty-seven

Portland, Maine, August, 1946

No. 8

*Presidential Address**

ADAM P. LEIGHTON, M. D., Portland, Maine

The honor which you have conferred upon me by electing me President of this association, and thereby placing me in line with the many excellent men who have previously graced this office, is verily a mark of enviable distinction and, I confess, the culmination of a long cherished desire upon my part. An honor it is indeed to have had the vote of the majority of one's friends and medical associates, even if there might have been a bit of political strategy and "Ward Politics" brought to bear to assure the success of my election. To my friends, therefore, I say that I assume your action flowed from, perhaps, some kind regard for me, and as such, it has been a source of great pleasure and satisfaction.

To prepare a so-called Presidential Address, which, at least, might be fitting and in keeping with this occasion, I have found to be rather a difficult task. There are many subjects which I would like to present, and I realize that a continuation of my harangue concerning errors and mistakes in the past, with terse warnings for the future, has become rather boresome, and

constant repetition of the facts having to do with the obvious complacency and inactivity of the past few decades has ceased to be of interest. I don't want to be a prater, nor do I want to arrive in that frame of mind when everything seems to be wrong, and it appears that one's medical confreres should be continually exhorted towards the necessity of self-preservation and constant opposition to everything in particular. My ideas have been freely stated this past year, and maybe the exploitation of my pet aversions too apparent. It is funny how a person becomes so imbued with the worth of his own analysis of medical problems that his egotism and puerile cerebration hinder him from seeing the other side of the picture, to the end that he has no patience with his colleagues' seeming inattention and disagreement. I still maintain, however, that never in our history has it been so necessary to take account of stock and have realization of the chaotic state of medical affairs which now demands immediate remedial measures, with a coördination of effort towards such action, if our Profession expects to pursue the even tenor of its way.

Since such conditions exist it is not surprising that the Healing Art Profession should

* Presented at the 92nd Annual Session of the Maine Medical Association at Poland Spring, June 24, 1946.

now find itself called upon to solve new and difficult problems in medical organization and economics, matters, which a brief quarter of a century ago, were not even given a passing thought by, perhaps, eight out of ten Doctors of Medicine.

The significance of such a state of affairs is this: many, perhaps, a majority of physicians, who are now being called upon to consider plans that could make great changes in individual and collective medical practice, do not possess the background of knowledge on medical economics and public relations to enable them to form quick and satisfactory conclusions on proposed methods of practice that are radically different from those to which they have been accustomed since their undergraduate days. While many individual physicians have failed to sense the enormity of these impending innovations, such have been appreciated, however, by many medical organizations and their administrative officers.

During the past year I have had the seeming temerity to emphatically state that the time had come when we should arouse ourselves from that lethargy which has enveloped us for many years. The old time worn custom of leaving our affairs in the hands of yearly elected officials, and then in the House of Delegates at our regular meeting time, hastily give attention to many important matters and settle back in smug belief that all is well for another year, has been a patent error. It has been my observation that we have never really arrived at anything constructive, and now at long last, we have come to the realization that all this has been mighty poor business so far. We have run against some very serious problems in late years, and now we have waked up to the fact that we are living in a different era, much different in contrast to the good old days when there was little to bother us, and medical opposition was seldom met.

That we need a business head, a courier, a *full time manager* for our association is most apparent. We cannot further function satisfactorily, as a medical unit, without a full time executive secretary. Such an individual must and can be found, and we should follow the lead of other States which have already put their houses in order and on a businesslike basis. The next Maine Legislature opens in

less than six months. Let's be properly and ably represented, and for the first time in our history know what is going on, and make preparation to safeguard our own interests through the ministration and watchful eye of an efficient, well trained official. I am pleased indeed that my recommendation was yesterday accepted and adopted!

I have been happily surprised at the renewed interest in Association affairs and activities, and all this has shown itself by the increased attendance of the members at the various meetings of the County Medical Societies, and this I have had the opportunity to notice during my term of office. It is a good omen for the future! I have enjoyed the spirited discussions and the wholehearted attempt on the part of the members to really accomplish something, and to meet the changed conditions of the day.

The question of the voluntary or Prepayment Plan for Health Insurance has been much discussed during the last few months, but no satisfactory answer to the problem has been forthcoming. We must admit that under the American System, American Medicine — American Doctors — have developed the most effective and the most widely distributed medical care that has ever been provided for any comparable number of people anywhere. Free men—with fearless minds — progressively provided a higher and higher quality of medical care. This better and better medical care has been continuously more widely distributed and made more generally available. Through the Blue Cross, physician sponsored medical service plans and employer-employee group insurance programs, more than thirty million people are now provided with needed protections. The expansion of these services will provide other tens of millions with means for the easier payment of the cost of medical care. Through voluntary methods steps have been taken to bring to every American more effective medicines and medical procedures than were ever before known or imagined.

I attended recently a meeting of the Cumberland County Medical Society, an entire evening being given up for the consideration of this particular subject, and after three hours of argument and discussion of all types, the meeting adjourned, simply voting that we should adopt some sort of a Prepayment plan, and

that was all! There was no unanimity of opinion as to what should be done, and at the time of adjournment, we were farther at sea than when the meeting opened. I have felt all along that we should adopt some plan of Prepaid Insurance, especially, as the American Medical Association desires to sponsor such a proposition, and because the majority of the State Associations of the country have already fallen in line. I went to this meeting fully intending to advocate joining up with the Associated Hospital Service of Maine, which had done such a remarkable work with the Hospitalization Insurance Plan. After the unhappy and disappointing meeting which our special committee had with the local Blue Cross, I refrained from entering into any discussion whatsoever. I sincerely hope that no unholy alliance will be made with the Maine Blue Cross Organization since it has become perfectly obvious that they will undertake nothing of this kind without the inclusion of the osteopaths in the scheme. They show that they are unwilling to do business with us alone. As I stated earlier in the year on several occasions, if we are to evolve any system or plan of Prepaid Medical Insurance, it should be a Medical Association proposition pure and simple, and we should not allow the atmosphere to be vitiated by any association with this crowd of medical masqueraders.

Last evening you heard the masterly address given by Dr. H. Clifford Loos of Los Angeles, and I am sure that you were all inspired by his description of this modern businesslike type of practice. It was my good fortune a year and a half ago to visit his clinic and see its workings for myself. Today with the seeming lack of agreement in regard to the inauguration of some Prepaid Medical Insurance Plan, and with no definite provision decided upon for the medical care of the lower salaried groups, I would say that here is offered a most sensible and workable solution of the problem, one distinctly applicable to the State of Maine. One can easily visualize the formation of such a group in several of our large cities of this State, and, too, in collective rural communities where hospitalization is near at hand. It is my belief that we should cease working as monopolistic individuals and instead, work coöperatively. In place of assembly line specialization,

let us consider this Group Medical Practice of the Ross-Loos type which has worked out so well in the Western part of our country. Briefly, this is but the pooling of the regions' medical talent to provide coöperatively the complete treatment formerly given by the family doctors. The advantages are manifold. To the patient they are that and by the payment of a reasonable monthly sum in advance, his whole family is guaranteed the best of medical care. For the first time preventive medicine, too costly for most, is easily within his reach. Within limits, he can select his own doctor and he can be sure that the doctors in this organization are conscientious and the most skilled, — otherwise their colleagues will not allow them in the group.

The advantages of Group Practice to the doctor are equally as great. While his income will not be as great as our highest paid specialists today, he will be able to leave town for the week-end and know that his partners will give his patients as good treatment as he can give. He can trust his practice to a co-worker for several months while he takes a Post Graduate Course or a necessary vacation, and be sure that his patients will not be weaned away from him during his absence. As for the Profession, Group Practice can cure many of its ills. Those undertrained and rusty War doctors can on a decent salary work side by side with the best men possible, until they are ready to stride along on their own. The opportunities for study and further advance will be given, which are only wistful dreams to most of us practitioners today. The evils of fee splitting will end automatically and quickly would the incompetents be weeded from our ranks. With medical practice completely and securely within our hands, it would make the line of demarcation between osteopathic and true medical practice more distinct. Group Practice of this type is not a radical idea. The American Medical Association has long given its blessing to it. Clinics of the Ross-Loos type have operated upon these lines for years. It can be a tremendous influence for good. Better students and training, ethics which is strictly enforced and Group Practice; this is the foundation on which we can build a great new system of medical science.

For some years we have observed the

paucity of medical care in the rural districts in our State. The causative factors are well known. Men have left the towns and hamlets and the more recent graduates seem to refuse to go to the crossroads to practice medicine. It is most obvious that something must be done to stimulate again the migration of medical men to these districts. The medical graduates of today who spend eight or ten years to prepare themselves for practice seem to lean toward specialism and location in the city. What a calamity it was when unthinkingly and with a lack of foresight we allowed the one hundred-year-old Bowdoin Medical School to close its doors! We shall never cease to be sorry for this mistake. The rebirth of this Medical School and the production of medical men, graduates of this institution, would do much to right this wrong. A few of us in Portland interested ourselves in this possibility, and a committee from this association was appointed, which did much preliminary planning and work towards the re-opening of this school, similar to the pattern of the old days. That it was impractical and impossible we soon learned because the raising of \$9,000,000 or \$10,000,000 was an insurmountable barrier, this being the amount necessary to complete a plant which would meet with the approval of the Council on Medical Education and Hospitals of the American Medical Association. They also refused to allow Bowdoin College to sponsor this institution because no approval would be given to a "divided school." There did not seem to be any overwhelming desire on the part of the Portland Medical men to further this plan nor was it feasible, so, at this time it became apparent that our medical brethren of Bangor had a similar idea and considered their city to be the proper site for this school of medical teaching, under the wing of the University of Maine. The play was, therefore, taken away from us in Portland, but we are altruistic and generous enough to state that, reluctant as we were to give up our local plans, it was for the best that Bangor should "take over." The University of Maine certainly offers an ideal and proper setup. My congratulations are offered to the wide awake doctors of Bangor, and at this very meeting you have been fully apprised concerning the result of their activities. Unanimous approval of the project has been given by the

several County Medical Societies, and this association has given its complete approval and support to the end that we may go before the Legislature next winter and ask them to give us the "Green Light" to make this a reality. To have a Medical School again within our State will mean the creation of a medical center and a medical atmosphere, and give real impetus to the practice of medicine. Your foresight deserves commendation!

As one who has been privileged to serve as a member of the Maine State Board of Registration of Medicine for nearly thirty-two years, I cannot refrain from making comment relative to the irritating and bothersome subject of osteopathic and cult practice, which has gotten out of bounds during this last War, and necessitates full understanding upon your part of the possible mixup which faces us in the future if this racket is allowed to carry on. What to do about this illegal practice is a question indeed, and yet with our laws governing medical practice, one would imagine that they were inclusive enough to take care of this present-day invasion of our rights. The functions of the State Examining and Licensing Boards have been discussed from many angles and outlined from many points of view, but the very substantial part that they have played in the progress of modern medicine seems to have received but little comment and meager recognition. Modern medical science may well plume itself on the advances of recent years. We hardly recover from one new discovery before another is announced. Many of the age sought secrets of anatomy, biology, physiology and chemistry have yielded to the persistence and ingeniousness of modern methods, and the ways are constantly opening to the solution of new and fascinating problems. The sum total of medical knowledge has increased so enormously that no one may hope to be equally efficient in all its departments as in the olden days. Undoubtedly, the general practitioner of today is far and away better equipped to meet the ordinary exigencies of medical practice than his predecessors of even a generation ago. The passing of the so often eulogized and loudly lamented old family doctor is not due to any failure on the part of the medical profession or a medical education, but is a direct economic sequel to the demand of the Public for spe-

cialization in medical practice as a part of the modern cry for increased efficiency in all departments of human activity. That there is a loss to the individual of the former close personal interest and intimate relationship is the regrettable but inevitable price of this greater efficiency. We are still in the period of transition from that of the old family physician to a new era, the developments of which are not fully discovered. The advance has been so rapid that both the medical profession and the Public are struggling to adjust themselves to the changing condition. In this latter field the State Board took advantage of the opportunity and especially in the last twenty years has made outstanding contributions in this direction.

The original intent of the Medical Practice Laws was merely an attempted protection for the Public against the rankest type of Charlatanism. About the middle of the last century only a few States had laws requiring candidates to pass an examination before entering practice. Before that, and for years afterwards, in most of these States there were few, if any, restrictions. Students graduated in two years or left sooner at their convenience. Many more studied with or assisted other physicians, and announced themselves as practitioners with the barest smattering of medical information. Some hung out the traditional "shingle" without any preparation whatsoever. The conditions were intolerable and gradually one State after another passed regulatory laws until the closing years of the last century saw medical boards in most all of the States, requiring high school education, and a diploma certifying three or four years of proper medical instruction. The State of Maine was the tenth State of the Union to enact a Medical Practice Law and institute a Board of Medical Examiners, such as is embodied today in the State Board of Registration of Medicine.

In 1900, the American Medical Association began the publication of Educational Numbers of the JOURNAL, which revealed a large oversupply of medical schools. Four years later, the Council on Medical Education and Hospitals was created, which made the first complete classification of medical schools in 1907, and in 1910 joined with the Carnegie Foundation for the advancement of teaching in making a second complete inspection, and in this

year the famous report of the Carnegie Foundation was issued. It will always be a credit to the medical profession of the United States that it insisted so promptly on the correction of the bad condition. It received little help from the Public as, curiously enough, people generally, even those of education and culture along other lines, have been notoriously, from time immemorial, the dupes of charetans and quacks, and too prone to ascribe the efforts of medical men to elevate the profession and protect the Public from fraud and ignorance, as attempts to stifle competition and trade union practices. In this regard the conscience of the Medical Profession is clear, as evidenced by the prompt action following the disclosures to which I have just referred. Widespread merging of Class B schools took place all over the country. Many of the so-called Class C Schools closed the doors and in a few years the great reform was actually accomplished. In this movement the State Examining Board played an important and an essential activity, for it was their coöperation in refusing further recognition to the substandard schools that really forced the issue.

In the raising of the requirements for pre-medical preparation of students, the examining boards also gave prompt and ready assistance. The developments of modern medical science demanded that schools of medicine should have a better understanding of the basic sciences, and the examining boards through their power to recognize only those colleges which demand pre-medical college training, have made two years, at least, the universal legal requirement. At the present time medical education in this country is in a very satisfactory condition, and this great advance in a single generation is a matter of sincere self-congratulation.

It is rather a curious reflection on the working out of human affairs that from the very efforts to reform medical education should have sprung that great impetus to those parasites of the medical profession, the cults, which constitute such a vexatious problem now-a-days, but it is, nevertheless, true. When the requirement of a minimum of two years of college pre-medical preparation was put into effect, there were thousands of young men and women who were immediately barred from medical colleges. This, naturally, diverted many to schools of osteopathy with their low-

ered requirements for admission. These cult schools and, notably, one cult in particular, quick to see this, started a propaganda of advertising to open their arms to these persons. The Public, easily duped, misled by the clamor of the radio and other publicity work, gave far greater consideration to this cult than its merit deserved. It was imagined that a new school of healing had been discovered, a new philosophy of disease involved, when in reality it was merely a marvelously deft publicity stunt sprung at the psychological moment.

Whoever made the observation as to the birthrate of "suckers" a generation or two ago (and I believe it was P. T. Barnum), were he alive today following the chiropractic furore, would feel, I am sure, that he had been unduly conservative. Exasperated by the mendacity of the claims of these cultists, the medical profession has been more perturbed than the situation really warranted. It is very natural and human to experience a feeling of irritation over the reception of the Public of our efforts to protect it from ignorant and unqualified practitioners, but we are too hasty on our side, and fail to take into account the ignorance of the great mass of people on medical subjects, and the almost utter lack of ability to discriminate between the claims of truth and falsity in medical matters.

All the more should we be tolerant when we reflect that much of this state of mind on the part of the Public is the direct result of the acts of our predecessors in the practice of medicine. We do not have to go back much over a half a century to recognize the cloak of mystery that was thrown about medical practice; to note the pseudo-scientific terms that were coined to hide the ignorance of the actual pathology, and yet satisfy the patient. Drilled for generations along such lines, can we blame people so much when they fall for such similar catch phrases as "subluxations of the vertebrae," "impingement of the nerves and adjustments?" Imitation is said to be the sincerest flattery, but we could wish that the cults would try to imitate the many and great virtues of our predecessors rather than these evidences of faults which were the result of their ignorance of the revolutionary discoveries of modern medicine.

I believe it is time and long since past, for

that matter, when we should have incorporated in the Medical Practice Act of Maine an exact definition of the "practice of medicine." For many years I have perused the many definitions of what is legally called "the practice of medicine," and I note they are all similar in their phraseology and general make-up. I, personally, like this simple declaration: "Medicine relates to the prevention, cure and alleviation of disease, the repair of injury, or treatment of abnormal or unusual states of the body, and their restoration to a healthful condition. It includes a broad field. It is not confined to the administering of medicinal substances, or the use of surgical or other instruments. It comprehends a knowledge, not only of the functions of the organs of the human body, but also of the diseases to which these organs are subject, and of the laws of health and modes of living which tend to avert or overcome disease, as well as of the specific methods of treatment that are most effective in promoting cures." Now, is Osteopathy what it claims to be, or is it the Practice of Medicine? Which is it? Osteopathy embraces all that is contained in the aforesaid definition, yet they do insist that they "adhere rigidly and persistently to the teaching of osteopathic fundamentals," that they are "absolutely opposed to the practice of medicine," as we know it, that "they are opposed to the use of drugs and that theirs is, indeed, a complete system," that "the pernicious practice of relying upon materia medica for its curative effect must be fought today more vigorously than ever before," that "their stock in trade is osteopathic manipulation." The President of the Kirksville School recently stated, "Then again it is the wrong idea for any osteopath to think he is entitled to or wish for unlimited privileges. Why should a man who is not trained in materia medica want the privilege of practicing medicine?" I have a dozen more quotations from catalogs of osteopathic schools and Journals which voice similar ideas and statements.

What has happened to the Maine osteopathic boys? Have they forgotten all the teachings and precepts of their schools? Have they come to learn that osteopathic treatment is distinctly limited, and to obtain proper therapeutic results, they have had to turn to drugs and medicines? Evidently, that is the answer, and when

the back door to medicine was opened to them in this State, the multitude poured in and have been riding two horses ever since. "They made hay while the sun shone," and when our medical brothers were away fighting their battles for them, they "took over" and have become firmly entrenched in the veritable practice of medicine. They make no bones of it. The osteopaths now illegally administer drugs and medicines in pulmonary disease, cardiac disorders, specific disease and for many other indications which are in no way related to obstetrical and surgical practice, and openly play the role of the Doctors of Medicine when they have neither the right nor the proper equipment. They make it a point to give the impression to their patients that they practice both medicine and osteopathy, and patients rarely discriminate or try to differentiate. They are proud of the fact that in Maine they have the highest per capita proportion of osteopaths to citizens of any State in the Union, and they utilize every ruse to confuse the Public and continue the deception.

I well remember an incident of some few years ago when on an occasion I remonstrated with an osteopath concerning some of the alleged irregular osteopathic practices. Following the discussion, he shot back at me the rejoinder. "Don't talk about us and what we do, until you clean the skirts of your own profession." I got his meaning, and when he made specific remarks about two or three Doctors of Medicine, who, I have to agree, have practiced pretty shabby medicine, and in the last few years have approached what might be called "Charletanism," our argument terminated quickly. There is an old saying, "When you live in glass houses you should not throw stones." We criticise the osteopath for his duplicity in attempting to appropriate the rights and privileges of practice which are rightly and legally ours. We criticise the other cults for their silly theories as to the causation of disease, and for their fakery as well as their clamor to be recognized by the Public. Maybe we should remember that we, too, have our faults.

A very large percentage of the regular medical profession is both progressive and ethical, but there is a very small element amongst us that represents a bit of quackery and dishon-

esty, which a little effort on our part could, perhaps, abolish. Some of the deception practiced by supposedly reputable members of the medical profession is of that refined and polished type which is hard to detect by the average observer. Some of it is blatant and crooked with no attempt to gloss it over, and our profession suffers by harboring in its ranks those men who would disgrace us. No doubt it is true that the medical profession is as free of undesirable members as any other profession or the followers of any other vocation that is organized, but that does not lessen the duty which we owe to ourselves to improve conditions by disciplining and penalizing those who do not live up to the rules of conduct which we have established as our guide. Here in Maine we have knowledge of reprehensible actions within the ranks of our medical societies, and we harbor, maybe, fee splitters and notorious commercialists. Yet, no effort is made to suppress it. The only reason that they are tolerated within the ranks of reputable medical men is because no one seems to have the nerve to take the initiative in bringing the offenders to justice. In every locality where the profession has taken a firm stand in purging its ranks of offenders against the ethics and integrity of the medical profession, the standing of the profession in that community has been elevated to the point where the Public places implicit confidence in its medical men, and aids in the maintenance of the highest traditions of medical practice. On the other hand, in those communities where the medical profession, as a profession, dishonors the ethics and propriety of certain medical practice, the Public is generally suspicious and has little faith in the trustworthiness of the medical men of that community. All of this leads me to suggest that it would be a good thing if every County Medical Society would open each meeting, or certainly several meetings during the year, by reading the "Principles and Ethics" which has been adopted by every reputable medical society as a guide, but which so seldom is lived up to in letter and spirit:

We shall never successfully combat such impositions on the Public until the latter has learned of itself to discriminate between the real and the false. The more the people know

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*Internal Derangements of the Knee Joint**

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INTRODUCTORY STATEMENTS INCLUDING EMPHASIS ON MUSCLE EXERCISES

Internal derangements of the knee should be of tremendous importance as well as interest to the profession because so often a swollen knee is mis-diagnosed and mis-treated in the early stages, resulting in many so-called "trick knees" and chronic disabilities.

Without question serious damage is caused following knee joint injuries by wasting of quadriceps muscle. Exercise for five minutes hourly throughout the day should be a standard rule following most injuries. The patient should receive specific instructions before operation as to correct exercises.

BRIEF ANATOMY OF KNEE JOINT

One should keep in mind briefly the anatomy of the knee as a hinged joint in which medial and lateral stabilization is obtained to a large degree by the collateral ligaments, and antero-posterior stability is maintained by the cruciate ligaments. Force in the direction of the long axis of the tibia and femur is cushioned somewhat by the semi-lunar cartilages. The quadriceps tendon, which is attached to the patella, forming a part of the capsule, is a mainstay in the extremely important motion of extension.

TRAUMATIC SYNOVITIS

Traumatic synovitis is usually caused by a sudden strain or twist of the knee, resulting in the filling of the spaces, such as the suprapatellar bursa, and resulting in floating of the patella. Tenderness is usually generalized. Aspiration should be accomplished, elastic bandage applied and the leg immobilized in full extension. Quadriceps exercises are begun the day following injury, and weight bearing as soon as possible. If the muscles are allowed to waste a recurrent synovitis may develop, especially in that group of elderly patients whose

joints reveal degenerative arthritis. Normal muscle control is regained by regular quadriceps exercises in bed before weight bearing is attempted. Injury to a semilunar cartilage must be ruled out. Tubercular synovitis usually has a dough-like sensation of synovial thickening. Luetic synovitis usually is bilateral, symmetrical, and reveals a positive serology.

HEMARTHROSIS

Hemarthrosis, which was a common offender during the rigorous training programs of our army, is caused by a severe blow or torsion, tearing the blood vessels of the synovia. In hemarthrosis swelling takes place rapidly and the pain is very severe. Frequently there is a temperature rise of two to four degrees above normal. Treatment consists of aspiration and immobilization in extension, using a posterior slab of plaster and an elastic bandage around the knee. Quadriceps exercises are begun as soon as all danger of recurrence of hemorrhage is over.

COLLATERAL LIGAMENT DAMAGE

- (a) *Internal or tibial collateral ligament.*
- (b) *External or fibular collateral ligament.*

In one general hospital overseas injuries of the collateral ligaments comprised about 35% of the internal derangements of the knee joint. There was an apparent predominance of 2 to 1 in favor of the internal lateral or tibial collateral ligament. The internal lateral ligament is a broad, flat membranous band situated nearer to the back than to the front of the joint. This ligament may be torn from its femoral attachment by an abduction type of strain of the extended knee. The diagnosis may be made from localized tenderness, swelling and ecchymosis, and rather severe pain when the knee joint is strained into a valgus or knock-knee position. There is usually present a varying degree of joint effusion. Complete extension is sometimes limited about 10 to 15 degrees so that it may be advisable to await a

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ten-day period before differentiating between a simple strain and that complicated with a torn cartilage. For a sprain the treatment comprises bed rest for a brief period, elastic bandage, raising the inner border of heel and sole $\frac{1}{4}$ inch to prevent a valgus strain, and constant quadriceps exercises. If the ligament is completely torn from the femur one will find all the usual signs of a simple strain in addition to marked lateral mobility of the knee joint. Treatment consists of immobilization in a plaster cast from groin to ankle with the knee in extension, and the valgus deformity corrected, for a period of 8 to 10 weeks. Quadriceps exercises should be continued at frequent intervals each day. Knee braces are of little value if correct exercises are neglected because it is just as important or more important to have strong muscle action in the face of severely weakened or torn ligaments. If an acutely torn ligament is not properly treated one finds a chronic knee with varying degrees of lateral or knock-knee instability. This later condition may need operative treatment if adequate muscle exercises have failed. Usually a new ligament is re-constructed from the semi-tendinosis tendon and immobilized four to six weeks in plaster with frequent non-weight bearing exercises. When the internal lateral ligament is ruptured for considerable length of time calcium deposits and ossification takes place at the femoral attachment. This is known as Pellegrini Steda's disease, though actually it is not a disease but a result of trauma.

The external lateral or fibular collateral ligament is a rather strong, rounded, fibrous cord attached above to the lateral femoral condyle and below to the lateral side of the fibular head. It is well to keep in mind that the greater part of its lateral surface is covered by the tendon of the biceps femoris. As with the internal lateral ligament, the external lateral ligament may be sprained or completely torn. The sprain is treated by a brief rest and then regular exercises. The ruptured ligament does not present the same problem as when the internal lateral ligament is ruptured. The disability is much less because the outer joint surface is protected by the biceps muscle. It is a rarity that new ligaments have to be reconstructed for the outer joint surface. Usually complete immobilization in plaster with routine quadriceps

exercises comprises the treatment. Although rare, evulsions of the external lateral ligament with a small section of the fibula have been reported, which undoubtedly are due to a severe adduction type of strain. The latter condition may be treated by operative procedure in which the bone fragment is sutured to the periosteum of the fibular head.

INJURIES OF CRUCIATE LIGAMENTS

The cruciate ligaments are situated in the middle of the joint and are very strong. The anterior cruciate ligament is attached to the tibia anteriorly, to the depression in front of the intercondyloid eminence and passes upward and fixed to postero-medial surface of lateral femoral condyle. Due to abduction or hyper-extension, this ligament may be ruptured or severely stretched and may be associated with strain of the internal collateral ligament. When the tibia is dislocated forward the anterior cruciate ligament must rupture, or vice versa, when the femur is drawn backward on the tibia. Clinically, if during the process of examining an injured knee we find excessive forward mobility of tibia on femur, with the knee flexed, we must assume the anterior cruciate ligament is ruptured.

The posterior cruciate ligament is stronger and shorter than the anterior. It is attached to the posterior intercondyloid fossa of the tibia and posterior extremity of the lateral meniscus and passes upward, forward and medially, to be fixed to the anterior and lateral surface of the medial femoral condyle. From the anatomy it may seem that the ligament is taut when the joint is flexed and thus prevents the tibia from displacing itself backward on the femur. Therefore, any trauma to the upper tibia which would push the tibia backwards, especially with the knee flexed, may tear the ligament. Clinically the diagnosis is made by pushing on the upper, anterior tibia, with the knee flexed and the leg in a stationary position and determining if there is excessive backward mobility of the tibia on the femur. Of course the other usual signs of synovitis may also be present, such as tenderness and joint fluid. The treatment is the same for either anterior or posterior ligament injury. If the diagnosis is made soon after injury treatment is usually the application of a long leg plaster cast up to the groin with the

knee flexed about 15 degrees. The tibia is pushed backward for rupture of the anterior cruciate ligament and pulled forward for rupture of the posterior cruciate ligament. It must never be forgotten that regular daily quadriceps setting exercises must be emphasized and demonstrated to the patient. Immobilization should be continued for about 12 to 14 weeks. The result of old untreated damage to cruciates are not so favorable. Fascia lata may be twisted into a fine rope and new ligaments reconstructed, through drill holes in the femoral condyles and tuberosity of tibia. However, this is far from a satisfactory answer.

SEMI-LUNAR CARTILAGES

- (a) *Types of injuries and causative factors and treatment.*
- (b) *Cysts and other variations from normal type.*
- (c) *Joint effusions associated with meniscectomy.*

The semi-lunar cartilages or menisci are probably injured more frequently than is recognized. It is not unusual to see patients in later years of life with arthritic changes in one knee and who have a typical past history of a ruptured meniscus undiagnosed. The menisci are disc shaped pieces of cartilage on each side of the joint which serve to deepen the joint surfaces of the tibia for articulation with the condyles of the femur. The peripheral border of each meniscus is thick, convex, and attached to the inside of the capsule of the joint. The opposite border is thin, concave and free. The medial meniscus is almost semi-circular whereas the lateral meniscus is almost circular. In a series of 135 injuries of the menisci, 114 were various tears in the medial meniscus while 16 were injuries of the lateral meniscus, whereas 5 were cysts of the lateral meniscus. A tear in the semi-lunar cartilage is due to rotation strain with the knee flexed, and weight bearing through the knee region. The tibia cannot rotate if it is not flexed. When the leg is externally rotated the internal cartilage lies between the weight bearing surfaces, and when a sudden weight is brought to bear the cartilage is split. Playing football is one of the most common

means of injuring the cartilages. Soldiers frequently ruptured a meniscus during the violent twisting motions of combat training courses. It was noted that a great percentage of soldiers who were injured when in a crouching position had posterior tears. This is due to the fact that when a knee is flexed considerably the weight is borne further back on the tibia and therefore the injury is in the more posterior portion of the cartilage. An internal rotation and adduction of tibia on femur is necessary to get a tear of the lateral meniscus. This is naturally a less frequent strain. The tears of the cartilage may be, bucket handle in which a large section of the entire cartilage is displaced between the condyles and results in locking of the knee, posterior type, and tears of the central margin, the latter of which do not cause locking. Clinically the typical findings of a torn medial meniscus of the bucket handle type are, a history of external rotation, abduction type of strain, severe pain on the inner surface of the joint, locking of the knee in a semi-flexed position, and marked swelling of anterior joint region within a few hours. After prolonged rest there may be a history of many similar attacks. There is associated tenderness over the joint margin and a positive McMurray sign. X-rays must be taken to eliminate the possibility of a loose body. X-rays after injection of air into the joint is a further aid in diagnosis. When the lesion is a small marginal section, or a tear in the posterior portion, the usual history may be missing, namely — locking, localized tenderness and joint effusion. However, if done carefully we can usually elicit a positive McMurray sign, in which the surgeon stands on the side of the injured limb, places the fingers of one hand over the joint line and grasps the foot with the other hand. The knee is fully flexed with the heel almost in contact with the buttock. The tibia is rotated inwards, outwards, and from adduction to abduction. If the cartilage is torn at the extreme posterior region the loose portion will be felt slipping between femoral condyles and tibia. If nothing is heard the leg is slowly extended while the leg is externally rotated and abducted. The more extended the knee the more anterior the tear.

When a lateral meniscus is torn we have the same clinical features as in a medial meniscus,

except the tenderness is localized over the lateral joint surface and McMurray's sign is elicited by adduction and internal rotation while gradually extending the leg. The treatment consists of complete immobilization in extension for about four weeks, or operative excision of the cartilage. The non-operative treatment is justified if one could be certain as to whether or not the tear was in that region where the blood supply is good. However, one cannot always be sure and if continued bouts of locking occur over too long a period one may be inviting an osteo-arthritic process. In the face of an osteo-arthritic process it is somewhat questionable as to the value of removing an old ruptured cartilage. Many excellent surgeons feel that operation is essential in order to eliminate further trauma and more activation of the arthritis.

In one U. S. army general hospital overseas in a series of 75 menisectomies, 62 were due to recent injury and 13 dated from ten months to four years. The injuries of more recent origin were all eventually reclassified as to duties, but remained in the theater of operation. Whereas the 13 cases of old injuries were returned to the U. S. as unable to do overseas duty because of a poor convalescence after two months of treatment.

Cartilage with anterior bucket handle tears are excised through a small incision over the margin of the femoral condyle which is carried down and outwards. If there is a posterior tear usually a second incision is made with the knee flexed. Post-operatively the knee is bandaged with two elastic bandages, the outermost bandage being hemostatic in function, and removed in 24 hours or sooner. The knee is maintained in extension and quadriceps exercises begun in 24 to 48 hours. Flexion is begun in about 10 days and weight bearing in about 14 days.

Cysts of the meniscus are rather uncommon and apparently due to degeneration (mucoid) of cartilage substance by trauma, directly or indirectly. Clinically, we usually have a history of a hard swollen area of the lateral knee joint surface, which is most obvious with the knee in full extension and almost disappearing during flexion. This condition is painful especially at night while at rest, and often following an injury. The treatment consists of excision of the cyst and cartilage.

Joint effusions after menisectomy are not infrequent. This is usually due to post-operative inflammation and may vary from simple effusion to suppurative arthritis. They develop from a chronic synovitis due to meniscal lesions and are not caused by imperfect asepsis. Therapy is early mobilization, after 8 to 10 days of rest period with the leg in extension. If the effusion persists, aspiration as often as necessary should be done. At this point one should discuss aspiration of the knee joint which has been looked upon by many physicians as a somewhat formidable procedure. Probably he fears the introduction of infection into the joint, and possible discomfort and pain to the patient. Aspiration of a joint is an aid in diagnosis, prognosis and treatment. If the fluid is clear and serous we may assume irritation to the synovia of the joint cavity, which is usually produced by direct trauma to the capsule of the joint, or severe sprain of the supporting ligaments. A hemorrhagic fluid is the direct result of a laceration within the joint and if associated with tiny fat globules it may be assumed the laceration is in the proximity of the fat pad. The size of the fat globules is also of considerable significance. Large fat globules shown to be bone marrow cells would very definitely prove there was a joint fracture present even in the presence of negative X-rays. Undoubtedly many fractures of the tibial spine are neglected. From the therapeutic viewpoint, aspiration of joint fluid relieves the patient of considerable discomfort and without question hastens recovery as the already edematous synovia can only absorb fluid at a slow rate.

DISCUSSION OF JOINT ASPIRATION

By aspiration of hemorrhagic fluid there is less opportunity for the formation of fibrous bands. For aspiration a number 17 gauge, three-inch needle, is preferred, and inserted over the medial joint surface near the patella margin. A small amount of novocain 1% is infiltrated, or a tight elastic bandage applied as a figure of eight, with an open space over the patella and medial joint surface, will accomplish the same purpose. The pressure of this elastic bandage applied equally throughout the joint except for the site of aspiration, compresses the fluid into a localized, bulging, fluctuating mass.

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No Need For Change

Every Medical New Deal Less Successful

ADRIAN H. SCOLTEN, M. D., Portland, Maine

Our American way of life is something precious, handed down to us by those before us who have suffered and endured and accomplished. Our American medical practice is part of our American way of life. It is alive and growing, constantly adapting itself to the needs of our own people. The American doctor aims to give to everyone the best in medical care, and during prosperity and adversity, these aims have never been abandoned. Doctors continue to be envied men because of their ideals of service. No profession ranks higher than the medical profession though lately this profession has been taking much unjust criticism.

The American physician is an altruist; that was why he gave years of his life to the study of medicine. He wanted to help people. Moreover he wanted to be his own boss—not on anybody's payroll, not subject to the whims of any politician or nursed on any government bottle. For the past decade the best medicine in the world has been practiced in the United States, and in no other country are patients better satisfied with their doctors. Our way has stood the test of 300 years of trial.

STATE OF MAINE AN INDIVIDUALIST

Down through its history, Maine, as a state, has been an individualist. It has stood by its own convictions. Its people have never been pushed onto the band wagon because the cheering crowds were there, nor have they felt that to be in the minority is to be wrong.

The citizens of Maine have never encouraged a paternalistic government that gives every protection to its people, but takes in return their self-reliance and independent thinking. They have preferred to stand on their own two feet, and make their own plans and decisions. They have never encouraged the encroachment of government into private enterprise of any kind and particularly have they resented its inroads into the intimately personal relationships of religion, the press, and the practice of medicine.

COMMUNISTIC THINKING INVADES MAINE

We regret to say that during the recent demoralizing war, some of the old beliefs and standards have suffered. Communistic thinking has made its mental invasion into this state as well as into other less conservative states, and more people are now looking to the government to supply their needs and their wants. Now there are too many who think that the Government has a fat treasury which can give her people many things without taking back many times more than she gives. They fail to see that government taxation is something which daily subtracts from their pocket books. Doctors' bills come only now and then. Many persons go for years without having any.

Through fear that the Wagner-Murray-Dingell Compulsory Insurance bill would pass—which is now, thank God, no longer an immediate threat—some of the independent thinkers in the medical profession even in this rock-ribbed state have been stampeded into a surrender of their own convictions.

PRESERVE THE PRESENT WAY

They have been led to believe that some form of voluntary insurance plan is necessary. With a fatalistic "it is going to happen anyhow" attitude, they are ready like Esau of old to exchange their birthright for a mess of pottage. And what a mess it will be! State of Mainers should not scare so easily. It is inconsistent with their historical heritage. Moreover the silent majority of the medical profession who are opposed to insurance medicine in any form should not be afraid to express their views and stand by their convictions. If the threat of compulsory Insurance Federal Medicine raises its ugly head again, we should still be in a position where we can say that we have never favored changing our way of medical practice.

WHY FOLLOW IN THE PATH OF FAILURES

Why is any change necessary? Why do we have to follow in the path of failures? Every

compulsory plan ever tried has been a failure. No form of voluntary insurance medicine can boast of being a real success. Wherever prepayment plans are tried there are many dissatisfied patients and doctors. Every kind of insurance medicine is filled with meddlesome interference and is more time-consuming and more expensive than our present way of doing.

Who is the A. M. A.? *We are.* It is made up of individual members like you and me. Anyone who thinks he has something to say is permitted to say it. It is not a dictatorship. It follows democratic processes. Through its county societies the wishes of the individual members are made known to the state and national organization. In Maine there are hundreds of doctors who can see no need for changing a successful way of medical practice. Their voices should be heard.

MAINE SHOULD SHOW INTESTINAL FORTITUDE

There are some states in the Union which will have the intestinal fortitude to dam the tidal wave of propaganda in favor of unneeded interference in medical affairs. By tradition and inheritance, Maine should certainly be one of these. A courageous stand taken now can save us endless prepayment insurance headaches and federal control pains in the years to come.

We have in this country the best medical care that any nation has ever had and we want to keep it so. Before we change it for a system that has failed in England, Germany, Russia, and everywhere else where it has been tried, or for a prepayment voluntary insurance plan which usually precedes the compulsory plans, let us look into their failures and realize that, for us, change is no guarantee of improvement. We can stand fast and we should.

EUROPEAN MEDICINE INFERIOR

In the *A. M. A. Journal* of June 29, 1946, Dr. Lewis Miller, Congressman from Nebraska and general practitioner for many years, testifying against the passage of the Wagner-Murray-Dingell bill says, "I was shocked when I saw some of the treatment being given to patients in Europe, treatment that would not be followed in this country even in our poorest hospitals. The terms 'disability' and 'Neu-

rotic' came out of Germany when they adopted health insurance. Patients were paid when they were supposedly unable to work, and many of these folks developed a disabling illness."

"Neuroses of various types developed. This was in order to get the physician to issue a certificate that they were unable to work."

Europe lost its position of importance in post-graduate work soon after health insurance had been established. Before that time, many American physicians went to Europe to study. From 1927 on we could get better training in America.

My former good friend, F. G. Crownhart, Secretary of the Wisconsin State Medical Society, went to Europe to study medical conditions and wrote in 1938, "Again and again the observer is impressed that the standards of medical hospital service in Europe are not those of America."

"Sickness insurance is a leveling disease," said the director of one of the large Public Health Institutes in Denmark in conversation with Mr. Crownhart. "The incentive is gone. We develop fewer brilliant minds in our teaching centers and America catches the lead."

INSURANCE MEDICINE UNSATISFACTORY

Under any insurance plan of medicine the patient, not the doctor, is the real loser. The patient will often be treated routinely from a chart and not even see the doctor. The doctor will have financial security of a sort, arranged for him by his unwanted overlords. He will be a servant to the "musts" and "must nots" of that overlord. He will be without real freedom. The right to do his own thinking and make his own decisions will be gone. He will do more work on paper than he does on patients.

If working under a prepayment plan the insurance company may decide to pay only fifty or sixty cents on the dollar when the insurance premiums have not provided sufficient money. The doctors rarely get what is promised to them for unless the premiums are exorbitant, or almost everybody is forced through various pressures to take out insurance, the needed money is not there.

At no time under any type of insurance medicine, will the doctor get the fees to which he has been accustomed while in private practice, but he may have to handle many times his usual

daily load. Much of the insurance doctor's time is spent trying to separate the fakers from the really sick.

It pays to be sick under insurance medicine. It is the only way the patient has of collecting on his investment. Today when a patient visits a doctor, it is because he really needs him. He pays out his own money for something he needs and wants to get. He does not come because he feels that he should get something back on a doubtful investment that he has already made.

PATIENT LOSES MOST

Under insurance medicine of every kind, the patient is the greatest loser. Under any compulsory insurance plan—and Senator Murray says a voluntary insurance plan is only successful to the extent that it is compulsory—a deduction is made from the monthly pay check, whether the individual wants or needs a doctor or not. The most needy ones—the indigent, over whom so many insincere tears have been shed—who are not on anybody's payroll,—have no provision whatever made for them. These people have long been cared for by American Medicine without pay, and the American doctor has not given the indigent any haphazard, inferior attention.

EXPENSIVE ILLNESSES INFREQUENT

In order to get people to take out prepayment insurance or get Congress to put through a terrifically expensive compulsory Insurance law the truth has often been liberalized.

When in my teens, I ran a collection agency for doctors and I have been closely associated with the economics of medicine ever since. During all these years the doctors are the people who more than all other social minded persons unselfishly help people when illness strikes a family.

They, above all others, know that the burden of expensive illness hits only 10% of the total population and that 100% of it need not be insured to help out this small percentage.

I wish to here quote some statistics proving that catastrophic illnesses are over emphasized by the insurance proponents.

"We have found that less than 10 per cent require more than \$100.00 for doctor and hos-

pital bills in any one year. * * * Approximately 70 per cent of the total medical dollar goes to pay for illnesses costing less than \$100.00 and only 30 per cent to pay for illnesses costing more than that sum."

DR. WILLIAM A. BAUM,
Oregon Physicians' Service.

PATIENTS PAY UNNEEDED MIDDLEMEN

Under every insurance-sponsored medicine plan, whether compulsory or voluntary, the patient must pay not only the doctor, but the many middlemen. For every one hundred subscribers there will be at least one middleman who contributes nothing but dictation to the doctor and to the patient and who limits the freedom of both. These middlemen in the insurance companies will be lay people or the less successful doctors who are more interested in administrative work than in practicing medicine. Money considerations will largely guide their decisions.

Reliable sources reveal that any plan of compulsory medical insurance would mean the greatest expansion of the federal bureaucracy that we have ever witnessed in peace times in this country. Dr. Morris Fishbein says 300,000 bureaucrats would be needed to administer the Wagner plan.

When the doctor deals directly with the patient and sees that the patient is unable to pay or can pay only one-half or one-fourth of the usual fee, the good doctor can and does make that adjustment without any help or interference from anyone. He is much easier to deal with than a bureaucrat controlled by a set of rigid rules, which have him handcuffed at every turn.

OUR PRESENT WAY BEST

To deal directly with the patient without restrictions of any kind is the American medical way. This is the way we must fight to preserve. In it there is freedom and liberty, true democracy and all the things we hold dear.

After all, the doctors know the most about medical problems. No Public Health officer, no professor at a medical school, and no proponent of any new type of medical economics has ever been as close to the patient as has the doctor

who is in private practice. Of all people, the doctor in private practice, is the most competent to settle the medical economic problems of his patients. Today we handle them directly and simply. Those who cannot pay, do not pay. No middleman splits the fee with us.

DOCTORS PREFER THINGS AS THEY ARE

Maine is full of doctors who have never sued a patient for bills they knew the patient could well afford to pay; doctors who overlook the shortcomings of those patients who mismanage their financial affairs,—patients who have money for things the doctor feels he cannot afford to buy. Today many doctors do not collect a cent from some patients who during the hey-day of the war years failed to save because they spent their fat pay checks in riotous living. These same doctors want things to remain as they are. They keep their old-fashioned ideals of service and their reputation for friendly sympathetic treatment. They still believe that even with his imperfections the patient, not someone else is the best paymaster, for most patients do think highly of their doctor and 90% pay their bills.

Most of us still prefer to put up with some few patients who with their human frailties do not give the doctor his just due. We would rather keep our financial relations with these patients unencumbered, not restricted or regulated by any highly paid middlemen with thousands of invested dollars of the patients' money behind him. If an adjustment needs to be made the patient should be able to make it directly with the doctor.

The family doctor has, since America began, been the star player in the medical game of this country. The surgeon and other specialists are like the end runners who often carry the ball. They and the public health people are more in the limelight and they are sometimes given more acclaim, but the family doctor comes closer to the hearts of his people. The American public will never willingly submit to having their family doctors replaced by the paid hirelings of the government or of any insurance company.

For four decades attempts have been made to write the family doctor's death certificate, but he stills lives on. He will continue to be the

friend, the counsellor and the sympathetic adviser on all things medical to the American people. When he meets medical conditions that are beyond him he sends them to the specially trained boys, but a large per cent of the medical problems of his patients are within his province and he handles them well.

BILLIONS FOR LUXURIES

A billion dollars a year changes hands in the old American game of poker. A billion a year, or eighty-five dollars per person in this country is spent in the attempt "to draw to a double-edged straight or pick a heart to fill a flush," Professor Arthur J. Todd, Northwestern Sociologist and Director of the Chicago Recreation Survey reports.

The nation wagered two billion dollars last year on horse races. Chicago alone spent over ten million dollars last year for the movies; movies which have added little to our physical or emotional health. Several billions will be spent next year for unneeded luxury automobiles. Not a cent left for the Doctor.

Seven hundred million dollars last year went for cosmetics not counting toilet soaps. Cosmetics can hardly be considered in the same class with needed medical care, but people have money for permanent waves and the services of beauticians. Incredible amounts are paid for cigarettes and liquor. These are the "musts" in the American economy, but the American doctor, who has come closer to the hearts of the people than anyone except perhaps their ministers and their priests—the general practitioner or "family doctor" who even more than the specialist or the surgeon has been the builder of the emotional and physical strength of America,—the general practitioner who the insurance advocates say is "a casualty in the advance of medical science",—he along with the specialist and the surgeon should not be paid out of the family purse. For the doctor, the Insurance people say there is no money in that purse.

They would have the Movie Star and the business executive pay the same yearly amount for medical care as is paid by the clerk in the 5 and 10 cent store, or the office boy.

Continued on page 224

The President's Page

In an address given recently by Dr. J. A. Curran, Dean of Long Island Medical School, Brooklyn, N. Y., upon the changing order of medicine, he made the following statement. "It was stated recently that medicine has made more progress during the past forty years than the previous two thousand."

If this is true, it has occurred within the memory of a large proportion of our society.

Dr. Pinchoffs, chief consultant of medicine for the Pacific area, stated: "We made more progress in medicine in the Pacific area in a few months than the Japanese had made in two thousand years."

I believe this goes to show what a group of students can do in a free country, not influenced by totalitarianism.

It is hard to understand why it is that a group of professional men who have given so much to society, have to be constantly on the defense to protect themselves as a group.

When this country was founded, it was done by people who only wanted a place to work, and the privilege of worshipping God as they saw fit.

The country immediately began to grow and become more prosperous, and it has continued up to the present time. I believe this is due to the fact that we have been a free people, who could think and act with freedom, either individually or collectively.

It is with a great deal of fear that we see our country dividing in classes, each seeking its own special privileges.

We, as a profession, cannot help being especially concerned when we can see the tendency that now exists, to bring our profession directly under the jurisdiction of political bureaucracy. We know that the reason that the profession has attained its present position is because it has been able to go on in its research to conquer disease, and thus help humanity, unhampered by political favoritisms or any other isms.

We believe that the medical profession can take its greatest comfort in going on and developing itself intellectually even more, and thus be able to do more for suffering humanity, to which it has dedicated itself.

JOHN O. PIPER, M. D.,
President, Maine Medical Association.

Editorials

The Council Meets

The Council of the Maine Medical Association held its first meeting for 1946-1947 at the Augusta House, Augusta, on Sunday, August 4th. Items of interest to the members of the Association were discussed and acted upon as follows:

Carl E. Richards, M. D., of Alfred, was elected Councilor for the First District, comprising Cumberland and York Counties, to replace Waldron L. Morse, M. D., of Springvale, who resigned as of July 12, 1946. The delegates of the First District were polled and were unanimously agreed that Dr. Richards should replace Dr. Morse as Councilor for this District.

It was voted to hold the 93rd annual session of the Association at the Marshall House, York Harbor, Maine, Sunday, Monday, and Tuesday, June 22nd, 23rd, and 24th, 1947. We believe that those members who have attended previous meetings at the Marshall House will look forward to again assembling there, and that those members who have not been a guest at the hotel during an Association meeting have "something in store."

The following recommendations of the Special Committee to study the question of appropriation of Association funds to establish fellowships in post-graduate study for members returned from military service, consisting of C. Harold Jameson, M. D., Chairman; Thomas A. Foster, M. D., and Adam P. Leighton, M. D., were approved:

1. That the Association appropriate \$5,000.00 as a loan fund.
2. Loans to individuals of \$500.00 with interest at 1% repayable in five years.
3. Loaning agency a committee comprised of John O. Piper, M. D., Waterville, President of the Maine Medical Association, and Frederick T. Hill, M. D., Waterville, Chairman of the Committee on Graduate Education, who shall receive applications and consider the needs of the individual applicants.

4. Recipients, members of the Association who have returned from service and need financial assistance in taking refresher courses which require from six to twelve months' residence.

Members returned from Military Service interested in this program will, therefore, please contact Dr. Piper or Dr. Hill.

Harold E. Pressey, M. D., of Bangor, Chairman of the Veterans' Affairs Committee, presented a detailed report of a meeting of his committee, representatives of Veterans' Administration, Boston; Veterans' Administration, Togus, and the Associated Hospital Service of Maine, held at Togus, Maine, July 11, 1946. This meeting was held as a result of the action taken by the House of Delegates of the Maine Medical Association relative to the Veterans' Care Plan of the Associated Hospital Service of Maine, which was, "that the emergency agreement between the Council representing the State Association, and the Associated Hospital Service, Inc., of Maine be held in abeyance subject to new conferences between the Veterans' Affairs Committee of the Maine Medical Association; proper Officials of the Veterans' Administration, and the Associated Hospital Service of Maine. It is understood that any new agreement will give proper representation and authority to the Maine Medical Association."

Dr. Pressey's report was approved by the Council and it was voted that a letter to the members of the Maine Medical Association giving details of this meeting be drawn up by Dr. Ames, Council Chairman, and Dr. Pressey. This you will all receive in due course.

Dr. Shelton, Chief Medical Officer, Veterans' Administration, Togus, suggested that a series of articles pertaining to the work of the Veterans' Administration be published in future issues of the JOURNAL. This suggestion received the unanimous approval of the Council in-as-much as these articles, to be submitted by Dr. Shelton, will clarify many points regarding the care of veterans. Don't miss them.

Edward L. Herlihy, M. D., of Bangor, Chairman of the Committee to Formulate Plans for Re-opening of Medical School of Maine, whose committee was in session at the Augusta House during the Council meeting, re-

ported that the work of his committee is progressing satisfactorily.

Thus, through the pages of the JOURNAL, the Council will endeavor to keep the members of the Association informed relative to their activities.

National Health Bill Proposal Dies in Senate Committee

Commenting editorially on the report that efforts to obtain enactment of the National Health bill at this session of Congress have been abandoned by the Senate Committee on Education and Labor, the July 20 issue of *The Journal of the American Medical Association* says:

However, proponents of the bill assert that it will be introduced at the next Congress when it convenes in January. According to unnamed "persons close to the program," the "Wagner-Murray-Dingell bill was loaded with too much controversy for its sponsors to expect it to reach a voting stage before the election year adjournment begins." This statement from the *New York Times* should be pleasing to the medical profession of the United States, the vast majority of whom have indicated again and again their opposition to the kind of regimentation of medicine embodied in the Wagner-Murray-Dingell legislation. Incidentally, the *New York Times* says that among the witnesses asked not to appear at the hearings on the bill were representatives of organizations vigorously opposed to the legislation.

As we go to press, the following announcement has also just come from the Committee on Education and Labor:

The Education and Labor Committee voted

to instruct Senators Pepper and Taft to draw up a resolution embodying the recommendations of the Committee relative to child health. These recommendations would express the sense of the Committee that a total increase of \$31,500,000 for child welfare authorizations should be provided. On July 15, Senators Pepper and Taft introduced Senate Joint Resolution No. 177, amending title 5 of the Social Security Act, to provide for increasing grants to the states for crippled children, maternal and child health and child welfare.

This resolution will go now to the finance committee of the Senate for consideration and then to the appropriations committee of the House for its consideration. In case of favorable action, which at this time seems doubtful, the administration of these additional funds will be under the same regulations and controls as previous appropriations for the Children's Bureau.

By action of the United States Senate, President Truman's reorganization plan becomes effective so that the Children's Bureau will be transferred from the Department of Labor to the Federal Security Agency, where its activities will be coordinated with those of the United States Public Health Service and other governmental agencies having similar functions.

No Need For Change—Continued from page 221

Even in Maine there are some people who would "sell the doctors down the river" like they sold the slaves. They believe that the medical doctor should be subsidised by the government or by some medical insurance plan, dictated to and dominated by a non-medical hierarchy, played upon by the whims of political influence and reduced to a common level of mediocrity. These new ways of practicing medicine with their regimentation and restriction will certainly result in a definite deteriora-

tion in the quality of medical care in this country.

Once we have made the change we cannot turn back. Let us ask our Senators and Representatives and our patients to resist the flood tide of propaganda against American Medicine. We must fight to preserve the World's best way of taking and giving medical care. We must act before it is too late.

"Where there is no vision the people perish."

*Maine Study of Child Health Services of the American Academy of Pediatrics**

The American Academy of Pediatrics is now carrying on a study of all health services for children throughout the country. This impressively large undertaking has two objectives: first, taking stock of present services at a time when expansion of our hospitals and health services is under earnest consideration; and second, laying a sound foundation for future planning and legislation as they relate to the health and welfare of children. Present available information about our health services is often incomplete and inadequate.

At a national level, the study has been going on since last fall. Work is now underway in forty-five states. A trial study has been finished in North Carolina. A budget of over half a million dollars has been raised by contributions from the National Foundation for Infantile Paralysis, Inc., the Field Foundation, various pharmaceutical houses and from the Academy itself. A national committee of nine members, under Dr. Warren R. Sisson of Boston as Chairman, is responsible for the undertaking. Five of these committee members are in the active practice of pediatrics. The Children's Bureau and the United States Public Health Service are coöperating by lending personnel and furnishing statistical facilities.

The Study is being conducted along four fronts: first, hospitals and other institutions; second, clinics and other health services; third, services rendered by doctors and dentists in private practice; and lastly, pediatric education. Physicians, dentists and hospitals will be contacted through the pediatricians, and health services will be contacted through the health officials in the state.

In Maine, the Study is under the direction of Dr. Thomas A. Foster, State Chairman of the Academy. Offices have been set up in Brunswick and in Portland. Miss Mary C. Leo of Brunswick is acting as the Executive Secretary. The distribution of questionnaires to physicians and dentists is soon to begin.

The Academy hopes that the knowledge that its study is under way has had a deterrent effect on some of the legislation now being considered by Congress. It feels that responsibility for planning future health service rests in large measure with the doctors themselves. There is every indication that the Academy will use the facts collected for the purpose of developing a sound and medically-based program for the future. It seems very clear at present that unless the members of the profession take some responsibility for the years to come, someone else will take it for them.

* Approved by the Maine Medical Association at the 92nd Annual Session at Poland Spring, June 25, 1946.

THOMAS A. FOSTER, M. D.,

State Chairman.

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Secretary, C. W. Kinghorn, M. D., Kittery

County Society Notes***Piscataquis***

A meeting of the Piscataquis County Medical Society was held at Squaw Mountain Inn, Greenville, Maine, July 24, 1946. Members of the Aroostook, Kennebec, Penobscot and Somerset County Medical Societies were invited to attend.

The meeting was called to order at 3.00 P. M. by the President, Dr. Ralph C. Stuart.

Dr. C. Stuart Welch, Professor of Surgery, Tufts College Medical School, spoke on "An Evaluation of Some Recent Advances in Surgery." His talk, which was illustrated by lantern slides, was well delivered and very instructive.

From 5.00 to 6.45 o'clock, a social hour and three quarters. At 6.45 dinner was served. Following dinner, Dr. John O. Piper, of Waterville, President of the Maine Medical Association spoke, and David W. Park, a representative of the American College of Surgeons, gave a short talk.

Sixty-six were present at the dinner.

N. H. NICKERSON, M. D.,
Secretary.

New Members***Lincoln-Sagadahoc***

Sidney C. Dalrymple, M. D., Georgetown, Maine.
Lloyd G. Davies, M. D., Bath, Maine.
Donald B. Hawkins, M. D., South Bristol, Maine.
Philip H. Sylvester, M. D., Damariscotta, Maine.

Transfer of Membership

Arthur A. Nichols, M. D., Wiscasset, Maine.
From: Cumberland County Medical Society.
To: Lincoln-Sagadahoc County Medical Society.

News and Notices***Proceedings******Ninety-second Annual Session
Maine Medical Association***

Publication of the Proceedings at the Ninety-second Annual Session of the Maine Medical Association will begin in the September issue of THE JOURNAL, instead of in this issue as was previously announced.

Dr. Sleeper Approved as Hospital Chief

Francis H. Sleeper, M. D., Assistant Commissioner of Mental Health for Massachusetts, was approved by Gov. Horace A. Hildreth and his Executive Council as superintendent of the Augusta State Hospital and consultant on hospitals and mental health to the Institutional Service Department, on July 16th.

Dr. Sleeper will succeed Forrest C. Tyson, M. D., who retired June 30th.

*State of Maine**Board of Registration of Medicine*

Adam P. Leighton, M. D., 192 State Street, Portland, Maine, Secretary.

List of Physicians Licensed to Practice Medicine in the State of Maine, July 3, 1946.

Through Examination

Frank A. Bautze, M. D., 251 Newbury Street, Boston 16, Mass.

Francis W. Bradbury, M. D., Brewer, Maine.

Harold B. Lehrman, M. D., 129 Chadwick Street, Portland, Maine.

Dominique A. Martel, M. D., 47 Orange Street, Lewiston, Maine.

Victor A. McKusick, M. D., Guilford, Maine.

Hazen C. Mitchell, M. D., 320 Main St., Calais, Maine.

John Atwood Nelson, M. D., 113 Winthrop St., Augusta, Maine.

Stanley Arthur Paine, M. D., Dexter, Maine.

George Perret, M. D., 303 East Chicago Ave., Chicago, Ill.

Arthur Phillips Reynolds, M. D., Presque Isle, Maine.

Frederick Waldo Skillin, M. D., 14 Adelbert Street, South Portland, Maine.

Theo Edward Tetreault, M. D., 511 Park Ave., Kent, Ohio.

Through Reciprocity

Melvin Rauch Aungst, M. D., Boiling Springs, Penn.

Roy C. Crosby, M. D., 9 Catell St., Bangor, Maine.

Lloyd G. Davies, M. D., 17 Maxwell St., Bath, Maine.

Ruth E. Duffy, M. D., Devon, Penn.

Herbert Frank Hager, M. D., 123 Elmwood Ave., Providence, R. I.

Frank W. Kibbe, M. D., Lincolnville, Maine.

Donald Francis Macdonald, M. D., 263 State Street, Bangor, Maine.

William L. MacVane, Jr., M. D., 64 Highland Road, South Portland, Maine.

Jackson S. Pogue, M. D., 490 Brighton Ave., Portland 5, Maine.

James N. Shippee, M. D., 648 Ringwood Ave., Wanaque, N. J.

Tumor Clinics

Bangor:

Eastern Maine General Hospital

Thursday, 11.00 A. M.-12.00 M.

Director, *Magnus F. Ridlon, M. D.*

Lewiston:

Central Maine General Hospital

Tuesday, 10.00 A. M.-12.00 M.

Director, *E. C. Higgins, M. D.*

St. Mary's General Hospital

Wednesday, 4.00 P. M.

Director, *R. A. Beliveau, M. D.*

Portland: *Maine General Hospital*

Thursday, 11.00 A. M.-12.00 M.

Director, *Joseph E. Porter, M. D.*

Waterville: *Sisters Hospital*

1st and 3rd Thursdays, 10.00 A. M.

Director, *B. O. Goodrich, M. D.*

Thayer Hospital

2nd and 4th Thursdays, 10.00 A. M.

Director, *A. H. McQuillan, M. D.*

Venereal Disease Clinics

For the information of physicians wishing to refer cases of venereal disease for treatment, the State Bureau of Health announces that such facilities are available in the following locations:

Augusta, Bangor, Bath, Belfast, Biddeford, Bingham, Calais, Danforth, Eastport, Ellsworth, Grand Isle, Guilford, Houlton, Island Falls, Lewiston, Rockland, Rumford, Sanford, Waterville, Wilton, Millinocket, Old Town, Portland, Presque Isle, Winthrop.

Any physician wishing to refer a case may obtain the name of the clinic physician, in the town where the patient is to receive treatment, on request to the Director, State Bureau of Health, Augusta, Maine.

7th Annual Industrial Health Congress

For the first time the national Industrial Health Congress will be held outside of Chicago, according to an announcement by Dr. Carl Peterson, Secretary of the Council on Industrial Health of the American Medical Association, who reports plans for the meeting at Boston the week of September 30. Headquarters will be at the Copley Plaza Hotel, with some of the meetings scheduled for halls at Harvard University.

Preliminary plans call for meetings of committees and of the industrial health council on September 28 and 29, with the Congress officially opening on Monday, September 30. The first day will be given over to a symposium on lead poisoning, and to an afternoon surgical conference. A state society dinner and conference will climax the day.

On Tuesday, October 1, there will be a morning symposium on problems in industrial medicine as viewed by labor, management, and medicine. Elective conferences are planned for the afternoon on industrial physiology, administrative methods, aviation medicine, and workmen's compensation. A Pan-American dinner and conference will be held in the evening.

The third day will highlight medicine and industry in a physicochemical age, and also the place of physical fitness programs in industry, with the Bureau of Health Education of the A. M. A. contributing interesting data. A public dinner for health and welfare leaders at which a nationally-known industrial leader will be the speaker, will climax the program.

The Congress this year is being co-sponsored by the Council of the New England State Medical Societies.

Book Reviews

"Synopsis of Pathology"

Author: W. A. D. Anderson, M. A., M. D., F. A. C. P. Professor of Pathology and Bacteriology, Marquette University School of Medicine.

722 Pages. 327 Illustrations. 15 Color Plates.

Published by The C. V. Mosby Company, St. Louis, Missouri. Price, \$6.50.

Additions of important new material makes the second edition of this text more than ever valuable.

Every chapter in the book has been revised and 74 new illustrations plus 4 new color plates added.

In step with current interest, greater emphasis has been given to "tropical diseases" and conditions important in "war medicine." Chapters dealing with viral, rickettsial, mycotic, protozoal and helminthic infections have been enlarged and other subjects, such as epidemic hepatitis and blast injuries have been treated.

Coverage: Inflammation, Repair, Regeneration, Retrograde changes. Disturbances of circulation. Bacterial infections. Tuberculosis. Rickettsial, Viral Diseases. Spirochetal, Venereal Diseases. Mycotic, Protozoal, Helminthic Infections, Chemical Poisons. Vitamin Deficiencies. Disturbances of Growth. Cardio-Vascular System. Kidneys, Urinary Tract. Lungs. Liver, Gall Bladder, Pancreas. Blood-Forming Organs. Bones, Joints, Tendons. Nervous System.

"Synopsis of Physiology"

Author: Rolland J. Main, Ph. D., Professor of Physiology, Medical College of Virginia, Richmond, Virginia.

341 Pages. 21 Illustrations.

Published by The C. V. Mosby Company, St. Louis, Missouri. Price, \$3.50.

This is a small book designed especially as a review or refresher volume. It covers the high spots of the subject of physiology, providing adequate fundamental material and incorporating advances in the subject.

The author has purposely made his discussions concise, and has restricted it to human physiology, wherever possible, viewing the human body as a whole.

Brief mention of some physiologic disturbances is made to emphasize the contrast of normal and abnormal. Relative space devoted to the various subjects is determined by their complexity, clinical interest and importance, and recency.

Contents: 1. Protoplasm and the cell. 2. Environmental Adaptation of cells and Hemostasis of the Body. 3. Circulation, Blood and Tissue Fluids. 4. Respiration. 5. Digestion. 6. The Nervous System. 7. Sensation. 8. Endocrines and Reproduction. 9. Physiology of Miscellaneous Systems, Functions and Organs.

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Internal Derangements of the Knee Joint—Continued from page 217

tuant mass. The skin overlying becomes cyanotic due to impaired circulation, which results in hypesthesia and painless aspiration.

DIRECT TRAUMA WITH COMBINED INJURY OF SOFT TISSUE AND BONE

In many instances it is found that following trauma to the knee the semi-lunar cartilages or ligaments are torn or ruptured. Examples of this are found in dislocations of the tibia or depressed fractures of the internal or external tuberosity of the tibia. The meniscus, if found ruptured during open reduction, should be removed. Open reduction has its serious points because if sufficient periosteum is elevated from the small depressed fragment the inevitable avascular necrosis will result due to impaired circulation.

LOOSE BODIES

Loose bodies in the knee joint present a problem only when forgotten as a diagnosis, and we neglect to take an X-ray. The symptoms are recurrent attacks of joint swelling associated with pain and possible locking. In fact, the knee may appear as a ruptured cartilage until routine X-ray disproves the fact. The

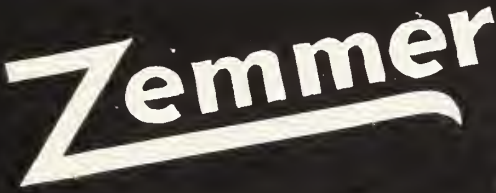
causative factors are usually trauma, in which a piece of cartilage and bone are loosened, known as osteochondritis dissecans, or the breaking off of small fragments in an osteoarthritis, and occasionally chondrification of the synovia in which large numbers of loose bodies form. Small occasional loose bodies are easily removed through short incisions, but multiple loose bodies spread throughout the joint may require synovectomy.

CONCLUSION

Here has been presented means of diagnosing the more common complications of Internal Derangements of the Knee Joints, diagnosis and treatment which are seen in the average practitioners office.

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Presidential Address—Continued from page 213

about hygiene, the causes of disease, anatomy and physiology, the more physicians take them into their confidence about the treatment of disease, the greater will be their faith in modern medicine and the present medical profession. This time is coming before so very long, but it can only be hastened by leading the Public thought and not by trying to drive it. Some of the activities of the medical profession in combating this cult evil have not been altogether judicious, but certainly we have been patient! I believe that the time has come for the strict enforcement of existing laws rather than the passage of new ones, especially, such as will produce no better results than those we already have. Some well intended individuals seem to think that a basic science law enacted at this time is most important and others desire to invoke the passage of legislation which would change our medical examining board to a composite type, allowing for osteopathic and, perhaps, chiropractic representation. As one who has had ample opportunity to see the workings of these particular Boards, I emphatically advise against the attempt at such hasty legislation, if such could be accomplished.

Basic Science Boards on the whole have not worked out properly and efficiently in the United States. I should dislike to see the "bars let down" and our requirements for medical licensure lessened in the least. Too, to recognize the osteopaths on the same level with us would be disastrous. A Basic Science Board, while theoretically plausible and workable and seemingly applicable to our present-day problem, is too late to consider. While we say that such a law is put into the Statutes to primarily protect the Public, we know the truth to be that it is but a clever way to restrict the number of cultists who would seek to practice in our State, and these people are wise to our desires. With a State over-run with osteopathic and chiropractic activity, what is there to gain by any attempt towards collaboration with this crowd?

Character is the priceless ingredient in every activity of Life. The Medical Profession has demonstrated that it possesses character and humanity. There can be no avoidance of our responsibilities. Integrity, honor and science are not changed by economics or politics. They are eternal. We cannot lower our standards. We will not compromise!

HOSPITAL STAFF MEETINGS**Open to the Profession**

CITY	HOSPITAL	DATE
Augusta	Augusta General Hospital	1st Wednesday
Bangor	Eastern Maine General	2nd Tuesday
Bath	Bath Memorial Hospital	1st Tuesday
Belfast	Waldo County	2nd Friday
Boothbay Harbor	St. Andrew's Hospital	4th Tuesday
Caribou	Cary Memorial	1st Wednesday
Damariscotta	Miles Memorial	1st Thursday
Lewiston	Central Maine General St. Mary's General	1st Monday 2nd Monday
Portland	Maine Eye and Ear Infirmary Maine General Mercy	1st Wednesday 2nd Friday 3rd Thursday
Presque Isle	Presque Isle General	1st and 3rd Tuesdays
Rockland	Knox County General	1st Monday
Rumford	Rumford Community	4th Wednesday
Sanford	Goodall Memorial	2nd Monday
Waterville	Sisters Thayer	2nd Tuesday Every Thursday

The above list was compiled from a questionnaire sent out by the Maine Hospital Association. Additions or corrections will be made on notification to the Secretary, Maine Hospital Association, Thayer Hospital, Waterville.



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Portland, Maine, September, 1946

No. 9

*President's Address—Maine Hospital Association**

FREDERICK T. HILL, M. D., Waterville, Maine

Due to the Government's ban on meetings last year, your officers have been continued in office for an additional 12 months. Thus we may be considered somewhat as War casualties.

During these two years the Association has made perhaps as much progress as could be expected under the existing circumstances and without the stimulus of new executives. We now have a personal membership of 133, and have 5 hospitals with 100% trustee membership. Indeed we have increased our membership more than all of the other New England States combined. But we should not be satisfied until every trustee is a personal member. We would have a stronger association and the trustees would be of greater value to their hospitals. I wish it were mandatory in every hospital that a trustee become a personal member of the Association in order to qualify for board appointment.

REGIONAL CONFERENCES

Two years ago we had just organized our Regional Conferences. Since then three of

these groups have been holding periodic meetings. These have been instrumental in developing coöperation, overcoming provincialism and in educating the trustees and staff members in the broader phases of many hospital matters. Unfortunately, the other three groups have not been very active. Two have had occasional meetings; one, none since its organization. While I realize the many demands on the time of busy people, I cannot help but feel that these groups have missed something; the chance of improving themselves and, more important, the opportunity of helping others who might be less well-informed. I sincerely hope that all six groups will develop active programs this coming year.

NATIONAL PROGRAM

A strong association is a necessity if we are to preserve our voluntary hospital system. In face of the many radical proposals emanating from Washington, the program of the American Hospital Association appeals to those of us who, while recognizing the need for progressive social thinking, still feel we should maintain a system of free enterprise and individual initiative. This program calls for Fed-

* Presented at the annual session of the Maine Hospital Association, Belgrade Lakes, Maine, June 21, 1946.

eral aid to the States for hospital construction on the basis of need, the development of prepayment medical care plans on a voluntary basis, and Federal grants-in-aid to the States to pay for the care of the indigent sick at cost. It has been estimated that this program can be carried out for 5% of the cost of the radical Murray-Wagner-Dingell bill. This should have our earnest support, both as individuals and as an Association.

STATE LEGISLATION

Through the efforts of our Association the last legislature passed the Hospital License Bill which sets up certain minimum requirements for hospitals. We were also instrumental in the passage of legislation providing for a survey of hospital facilities, as called for in the Hill-Burton bill. This survey has been practically completed and now is in the process of tabulation. This should make possible a coördinated hospital program which will best serve our entire State.

We hope that voluntary prepayment medical care plans will be developed in the very near future, probably under the aegis of the State Medical Association.

The need for additional funds to provide hospital care for the indigent is obvious. With the cost of patient care coming close to \$8 a day or even more, the amount available from the State-Aid Fund is entirely inadequate. It necessarily results in a special tax on the private patient, who pays more to make up for the loss on the indigent case. How much fairer to spread this tax load over the entire population, rather than on those already incapacitated by illness! Additional funds, State, or Federal, or both, should be made available to recompense our hospitals for the care of the indigent at cost.

PUBLIC RELATIONS

All this suggests the importance of a good public relations program in our State. Such a program, utilizing the press and the radio, can bring about a better understanding of these hospital problems and the need for public support, as well as promulgate education in Health matters. This is a difficult job for one organization and requires expert professional man-

agement. Recently, a number of organizations, interested in these problems, have combined with our Association in the formation of a Health Council, which is to carry on a continuation program of Health Education under a professional director. This promises to be of great value.

GROUP PRACTICE

We are hearing more of group practice as a means of providing better professional service in a manner economically advantageous both to patient and physician. Group practice in the hospital is not new or revolutionary. It simply means the pooling of professional skills and resources to effect better medical service. It is the adaptation to all patients, private as well as ward, of the principle embodied in the teaching hospital in the care of service cases, which developed the best type of medicine the World has ever seen. This should be a most effective means of improving professional standards in every hospital.

Recently, I listened to a very able discourse by a prominent physician in one of our sister States. In the course of his remarks, he launched into an eulogy of the work of one of the foundations which has been particularly active in Maine. Now I agree with many of the things he said, and I appreciate the fundamental altruism which has prompted this work. But I am becoming fearful that it may not be an unmixed blessing, perhaps largely through our own fault. The speaker told of what had been done in the "Wilds of Maine," a phrase which annoys me to say the least, and intimated that except for the work of this foundation, there would be no Medicine worthy of consideration in our State. He said that as a result of these activities it had now been possible to care for most of our cases in two or three hospitals, and that the really serious ones were automatically sent to a center in Boston.

Now we know this is too ridiculous to merit consideration, that it is merely another manifestation of Boston provincialism. But this impression is becoming too generally accepted. It has resulted in a rather condescending attitude on the part of some of our Boston friends, a sort of "Can there be any good thing come out of Nazareth." And, of more serious im-

port, there has developed a feeling of dependence, resulting in lack of initiative, a mental stagnation, in many of our own men. Have we, both here and in Boston, forgotten that in 1820 Maine ceased to be a province of Massachusetts?

Don't misunderstand me. I am not advocating medical isolationism or that we should not recognize our own limitations, what and wherever they be. I would be the first to advise the use of the best consultive facilities or the referring of any patient to wherever he would receive the necessary professional attention. But let's not sell ourselves too short. Let us use the many fine skills and facilities that we have in our own hospitals and endeavor always to further improve them. Let's not be the tail of the Massachusetts dog. Let's wag our own.

And we might go a step further. Let us who may be in the larger institutions or the ones more fully staffed with specialists, realize that the smaller hospital is quite capable of doing excellent work within its limitations, which it recognizes. Let us endeavor to encourage and assist, rather than attempt to monopolize. In every community, there will be patients who will have to be cared for in the local hospital, either for economic reasons or because their condition will not permit transportation. These people are quite as deserving of the best care as are the more affluent or those who may be moved. If the local hospital and its staff are limited to this first group they will be handicapped by lack of experience and an engendered feeling of incompetence, and the patient suffers. But if they may take care of a reasonable proportion of the cases which fall within their capabilities, then they are better able to give adequate service and ultimately may improve so as to widen their spheres of activity.

So this is a plea for a little less centralization, a little more independence and a weaning away from the colonial influences which, while seemingly presenting blessings of the moment, actually may result in a paternalism disastrous to our Future.

UNIFORM ACCOUNTING

Two years ago, I stressed the need of a uniform accounting system in our hospitals. The E. M. I. C. program, the recent adjusted payments by the Blue Cross and the growing recognition that hospital care for the indigent

must be paid for at cost, all bring to the fore the importance of such a system. Through the assistance of the Bingham Associates it has been possible to provide accounting surveys to some twelve of our hospitals. It is gratifying to note that by now practically all of our institutions have acceptable systems which reflect accurate cost accounting. With hospital costs well over 40% above pre-war level and an ever-increasing proportion of patients' bills being paid from Blue Cross, or other contractual plans, accurate accounting is an absolute necessity.

THE CHRONIC AND THE INCURABLE CASES

The care of the chronic and the incurable patients poses a problem which cannot be solved with our present facilities. It is not economic to use beds in our present hospitals, but where else can these patients go? It is, of course, preferable that they be cared for where adequate hospital facilities are easily available. This might be done by adding specifically designed units to certain of our hospitals. Another, and I believe more practical solution, would be to expand our present State Tubercular Sanatoria to include cases in this category. This would provide adequate care and be quite a bit more economical.

PERSONAL PROBLEMS

We are all cognizant of personnel problems. Indeed this term has assumed a malignant status, causing hours of worry and bewilderment, both to administrator and trustee, who begin to long for the good old days when people wanted jobs, were willing to work and showed interest in what they were doing. We recall with pleasant retrospection the alert interest, the desire to know why, the sense of participating in the drama of caring for the sick, which prevailed not so long ago. When it was a privilege and a joy to assist in some procedure aimed at restoring a patient to health! When intelligent questions indicated a desire for improving one's knowledge! When emphasis was upon the job to be done, rather than the pay to be gained! When bedside nursing was not considered menial! When there was real idealism! Will these things ever return? We hope so if hospital work is to remain a humane mission rather than a mere job.

Emphasis is now being placed upon making hospital work more attractive with increased security, in order to enlist and keep a better grade of persons who may find therein a career worthy of being followed. This is probably the best solution of these personnel problems. Certainly we should give serious consideration to retirement and pension plans, to affording opportunities for further education and advancement, and to full cash salaries without maintenance. These are constructive ideas and may eventually bring a return of that old-time idealism, so greatly needed today.

CASUALTIES OF THE WAR

War is destructive. Rarely do we realize how far-reaching is its devastation. We see the many young men who are crippled, physically or mentally, whose lives have been disrupted, and we realize the bereavements in many homes. We are sympathetic and humble before the many evidences of sadness and suffering, and we may wonder at a civilization which permits of such a thing, so destructive of human values. But the casualties of War extend far beyond these visual evidences. There is a loss of spiritual values, of moral stamina, of idealism which presents the greatest challenge of all Time to the church, the school, the home and to the hospital.

I would only mention the enforced delay in badly needed hospital construction, the inability to procure necessary equipment and the almost prohibitory costs, resulting from a disrupted economy. We have had and still have a shortage of doctors, nurses and other personnel. Indeed, for the hospitals, the War is not over. There is still a demand for hospital beds we are unable to meet. We have been forced to improvise and to employ short cuts which do not make for the best care or the most efficient service. Enforced priorities for hospital admission are bound to increase morbidity, if not mortality.

But even more serious than these are certain intangible casualties which have an insidiously demoralizing effect upon the spirit of the hospital. Lack of courtesy, of consideration, of sincere motivation, of interest in the job, of idealism; these are the most serious casualties.

Does our hospital personnel always welcome an incoming patient in a sympathetic manner, realizing that he comes, not of desire but of

necessity? Or does he seem just added evidence of more work to do? It has become a seller's market and we must take heed that our personnel do not emulate the harried hotel clerk, or the girl at the nylon counter.

Are we, ourselves, doctors, administrators, trustees, courteous and considerate in our relations with our patients and with each other? Are we also War casualties from hospital fatigue? Are we in danger of losing our idealism or our scientific interest in our work? These are things we should pause and give consideration to.

I am bound to conclude that the greatest of our casualties has been the patient who is in danger of becoming the forgotten man in our hospital world. Recently, I attended an important hospital meeting in which the patient was hardly mentioned. Much was said of personnel problems, of the hazards of new construction, of nurses' salaries, working hours and vacations, but 'nary a word about the person for whom the hospital exists. I heard it said that nurses should not be expected to perform what was termed menial tasks, even though aimed at getting the patient well, but must only supervise; and by the clock or by the calendar. If this continues we may soon expect the surgeon to limit his activities to supervising and have the operating done by technicians, the obstetrician to merely grace the delivery-room with his presence to officially pronounce the infant born, and the internist to delegate the use of the stethoscope to his helper; lest they demean themselves by performing menial tasks. And all to be strictly limited to a 40-hour week. Nobody can be sick and expect care over the week-end, or after hours. I have heard a hospital trustee say that he would not have an administrator with a medical or nursing background, lest that in an emergency he, or she, might forget the administrative duties and assist in the care of some patient. Shades of Florence Nightingale! What are we running our hospitals for?

So, while granting the importance of all of these things, such as accurate accounting, proper personnel policies, retirement and pension plans and a good public relations program, I sincerely hope that the theme of this meeting, running through every discussion, will be The Patient, the most important person in the hospital.

*Address of the Guest of Honor**

RAYMOND P. SLOAN, Editor of "The Modern Hospital"

This evening I want to take you back with me if I may many years ago. The scene I would create before your eyes is that of a tiny room in an old-fashioned house whose one dormer window looks over city roof-tops. It is the bedroom of a boy of seven, just an average boy; the home just an average home and the sight which greets him as he looks through his window just an average city sight—average to you and to me that is, but not to its occupant.

To the boy it is no ordinary view because of the light. Two short blocks away one building stands higher than the rest, and in that building one room stands apart. Its windows are higher and wider than in most rooms and its roof is in the form of a dome. And in that room is the light.

At night when the city is in darkness, that one room shines forth like a beacon. Sometimes as he says his prayers the boy notices that the light has disappeared, but he knows it won't be for long. By the time he is ready to hop into bed it will be there again. Throughout the night he is ever conscious of its presence. For this reason he has resisted stubbornly any attempts made by his mother to pretty up the room by hanging curtains at the windows. He doesn't want to lose that light; it has become a part of him.

Never will he forget the day his father told him the story of that light—the story of the hospital that never closes its doors, and of its operating room whose lighted windows revealed that some men and women, doctors, nurses' attendants that is, were fighting all day and through the night to save the lives of other men and women. He never ceased asking questions about those men and women, what made them doctors and nurses, when they slept, when they ate, where they lived. Soon they became the heroes and heroines of stories his imaginative mind conceived based on his own boyish interpretation of human suffering, of love, of final victory. Particularly on nights when the

little window was clouded by blinding rain or encrusted with particles of icy snow, he strove to see the light. It never failed. Those heroes of his never could fail. Rain or snow—nothing could keep them from letting shine bright, the light of their service.

Because his father was a friend of the hospital and active in its affairs the boy learned much about the institution and its people. The father loved to talk to him about them; the boy loved to listen. He learned of the absorbing devotion of his heroes and heroines to their tasks of easing pain and restoring people to health. Long hours of hard and sometimes disagreeable tasks meant nothing to them. Financial reward was not nearly so important as the reward of knowing that through their ministrations the sick had been restored to health. Nothing counted but the patients entrusted to their care.

Then one day the father took the boy to visit the hospital. That was a great day indeed! There the youngster met his heroes and heroines in person. And he saw the light. They turned it on for him even, and as he stood in the dazzling white room (this was before the days when operating suites were finished in soft grey and green), as he stood in the white room surrounded by white clad figures, he noticed something more. Something in the eyes of those men and women reminded him of the light. They spent so many hours working in its bright rays, he figured, that their eyes reflected some of its particular glow. This gave him renewed hope and confidence. He felt comforted just as he had felt when he woke up during the night and saw that light through the darkness.

Well, the boy grew up, as boys have a habit of doing. As he developed into a man he realized that the light of his boyhood had become symbolic to him of courage, of faith, of charity, of unselfish spirit, of the desire to serve. During difficult periods he would think about it, and envision himself back in the little dormer bedroom of his childhood with the rain beating against the window and the light penetrating through the night as if to assure him that some

* Presented at the annual session of the Maine Hospital Association, Belgrade Lakes, Maine, June 21, 1946.

people in the world were caring and fighting for others less fortunate.

Then by some curious chance the boy, now a man, found himself become a part of this hospital world in which he had grown up. He found himself visiting hospitals large and small the world over. In the years that had elapsed many changes had taken place in these institutions. New nursing and medical techniques had been developed which with miracle drugs and modern equipment effected cures that formerly would have been impossible. At the same time higher educational standards had been established. There was more talk of balancing budgets, and in consequence less time for talk of patient care.

Everywhere he went, the man found himself looking unconsciously for the light he remembered as a boy, not the light from the operating room but that other light—the light that shines from the eyes of those who are serving from their hearts. He watched for it as he stood by hospital admitting desks; he watched for it as he entered superintendent's offices, he watched for it as he shook hands with immaculately uniformed nursing supervisors'; he watched for it in the eyes of student nurses.

Frequently, he encountered it and in so doing he experienced a sense of supreme happiness and satisfaction. Again its radiance would be lacking and in consequence he was left cold, suspicious, fearful. Sometimes he found it where it was least to be expected.

He will not soon forget the slight little pantry maid carrying a tray to ward patients. She looked up smiling as she passed. There it was in her eyes—the light. She looked down modestly to the tray in her hands as much as to say — "I know it isn't much I am doing, merely carrying a tray, but my patient needs nourishment."

How right you are, little pantry maid. What you fail to realize perhaps, is that the patient needs that which your eyes and your general spirit express just as much as he needs the food you place before him.

Many times this man missed the light where it should have been. With the years he has missed it more and more. Where has it gone and without it can we ever hope to fulfill our destinies as true hospital men and women?

The hospital of my boyhood could not hope

to compare in the efficiency of its plant or in the cold perfection of its general operation with that of many of our modern hospitals. The educational background of its personnel would appear inconsequential indeed alongside that of present-day department heads. It didn't have miracle drugs, or what we know today as modern techniques. But I'll tell you something that it did have — my hospital had a light — a light born of the desire to serve others. Its doctors, nurses, attendants, everyone fought individually and collectively for the life of a patient without thought of eight-hour shifts, whether it was night or day, or whether they were underpaid. They were the miracle workers, and not the drugs they administered. There can be no light where we serve only our own selfish interests and benefits.

What has happened to us? What is happening to us? And what will be the result?

Recently, I talked with two nurses who had come back from overseas service. To my question of whether they were returning to the hospital they had served as supervisors, they replied emphatically, "We should say not." Then they went on to tell me of a friend who was graduated with them who was head nurse at Saks, Fifth Avenue, New York. She had a wonderful job, it seemed, easy hours, little to do and good pay. And that is precisely what they were after.

Only two weeks ago, I talked to a class of dietitians at Teachers College, some of them with hospital experience, and others without. They were practically in accord that hospitals offered nothing but headaches. Better money, more leisure and greater recognition were to be found elsewhere.

Such stories make me wonder whether those heroes and heroines of my boyhood hospital were as completely satisfied with their lot and as happy in the service they were rendering as I believed them to be. Did they spend their leisure moments complaining about their long hours, hard work and poor pay? Did they speak in terms of unionization? I can't believe that. Otherwise there wouldn't have been that light.

We took too much from them, expected too much of them, I agree. Too much emphasis was placed on the privilege of serving the suffering and too little on the recompense and

well-being of those who were carrying the burden, and a heavy burden it was too.

It is for such good reasons that today we have clearly defined personnel policies including higher wage scales, shorter hours, better living conditions. All this is as it should be.

Hospitals must keep pace with the trend. At the New England Hospital Assembly last March, Dr. Fred C. Carter, superintendent, St. Luke's Hospital, Cleveland, made the statement that the hospital bill in Cleveland today is 40 per cent higher than it was in 1940 due largely to salary increases. The question is how far can we go in this direction. Where are we to get the money to carry on?

Also there is the question—will this bring back to us what we have lost? Is it the answer? I doubt it. I can't believe that anyone who is consecrated to his or her work is too mindful of hours. And I'm just old-fashioned enough to believe that no one should embark on a hospital career unless he feels the call. If he is not willing to give more of himself than that for which he is actually paid in dollars and cents let him look elsewhere.

Let those nurses to whom I referred get their jobs at Saks Fifth Avenue. Let them spend from nine to five each day administering smelling salts to plush old ladies, and rubbing the sore feet of nylon grabbers. I hope the extra dollars they find in their bank accounts at the end of the year will compensate for the void that must exist in their souls. Let the dietitians who see in hospitals nothing but headaches take over the big industrial and state nutritional posts. Personally, I'd rather have headaches than heartaches.

Probably the whole answer lies in the fact that we have become spoiled. In the hospital of my boyhood the workers didn't have the educational advantages that many of us have today. With less time to think of themselves they had more time to think about others. They didn't have the labor-saving devices, the modern equipment to make things easier, so they went ahead cheerfully and happily with personalized service.

Recently, I was shown a new type of hospital bed about to be introduced in which the patient by pressing buttons, practically takes care of himself. No more bed pans, no more overbed tables to be moved into position. Little

to be required of the nurse than to stick her head in the door and inquire in her best professional manner, "And how is the patient this morning?" Probably there will be some who will feel that a graduate nurse shouldn't waste her time on such details, and in consequence an inventive manufacturer will introduce a loud-speaker system to take care of such formalities. It might be as well. Unless such greeting is going to be genuine, that is spoken from the heart, better have it wholly mechanized.

We have progressed, or have we? It all depends upon the individual's point of view. Surely we have become more efficient mechanically. Whether we have developed proportionately as human beings in our ideals and relations with one another, is something else. To what ends will we use the benefits that are coming our way—our education—for our own selfish pursuits or for the advantage of mankind in general.

In the utopia that lies ahead, we are promised shorter hours, greater financial security, old age benefits and such. Freedom from fear is the term frequently heard. With more leisure on our hands and less need to worry, we should find ourselves in an enviable position to accomplish—what? To sit and think about ourselves, or what we should have that we lack; or to go out and see that others get what they lack and what they should have. Yes, to replenish that light of unselfish service.

This constitutes one of the great challenges of the future, it seems to me, and particularly for those of us in hospital work. Starting with the trustee down through the entire institution, let's see if we can't revive that light. Are our trustees being selected for their names or for their hearts, for their bank accounts or for their communal mindedness? What type of doctors are they appointing to the staff? Are they men qualified to administer to men's souls as well as to their bodies? Is the trustee mindful of his own responsibilities, of what goes on in the operating rooms? Is he insisting that the highest medical standards be maintained? What about professional audits? Does he realize that the story of hospital success or failure can be read in the medical records? Has he fulfilled his essential function of appointing an administrator who while thoroughly qualified

Continued on page 242

The President's Page

The question of prepaid Medical Care in this state, is still far from being settled; in fact in spite of hard work and conscientious thinking by more than one committee, practically nothing has been accomplished.

I believe I was asked to appoint a committee for this year to consider this question. This has not been done, and I believe I will not appoint one until there is something definite to work on.

We believe that it would be a good idea for the various County Medical Societies to consider this question for themselves and write a memorandum of their deliberations and an opinion of what they want; this to be reported by their councilor to a meeting of the state council.

This question is a serious one, and one that demands an answer. To us, there seems to be no better way to get an opinion from the whole state, than to have one from each county.

It would seem that we have been going at it in the wrong way, in appointing a committee from the council, to work out a plan to present to the House of Delegates.

We hope that each county will take up this question, and present their report to the council before Christmas this year. Let's be definite about this matter, and either say you are not interested, or give us something concrete to work on.

The council is glad to give freely of their time, and your president will be glad to appoint a committee, after you have expressed some definite opinions.

This question is dropped until we hear from you, in so far as your president is concerned.

JOHN O. PIPER, M. D.,
President, Maine Medical Association.

Editorials

Physicians Review Infantile Paralysis and Its Treatment

With poliomyelitis spreading to epidemic proportions in various sections of the country, the spotlight of medical science today is focused on this crippling disease which the American Orthopedic Association says was first described by a London physician in 1784.

The August 24 issue of *The Journal of the American Medical Association* publishes a brief primer of the disease and its treatment which was prepared by the following committee of the American Orthopedic Association: Drs. Robert W. Johnson, Jr., Baltimore; A. Bruce Gill, Philadelphia; Edward L. Compere, Chicago; William T. Green, Boston; and H. R. McCarroll, St. Louis.

The five physicians say that "since the elimination or curbing of the great epidemic diseases of childhood, such as smallpox, diphtheria and summer complaint, no disease has created greater apprehension among people than infantile paralysis — not because of its mortality or even its incidence rate in epidemics but because it may produce such tangible and lasting crippling in the victim it does claim."

REVIEW HISTORY OF DISEASE

In reviewing the history of poliomyelitis or infantile paralysis, the doctors state that it was not until 1909 that investigators discovered the disease was caused by a virus—a minute, living organism which is so small that generally it cannot be recognized by means of the strongest microscope.

"Much careful and difficult investigation, clinical, epidemiologic and experimental, has been carried on in the 37 years since the discovery of the virus character of poliomyelitis, and progress has been steady," the primer says, adding: "Valuable information has been accumulated but as yet certain essential knowledge has not been won as to its transmission, its mode of invasion of the central nervous system, the tissue reactions of the host and the development of an active or passive immunity. These are the real goals which science strives to reach; for far more important than the

necessary and appealing rehabilitation of the paralytic is the elimination of the infection or the positive protection of the child from the disease in the first place."

PRIMER SUMMARIZES SCIENTIFIC FACTS

The primer sets out these facts about the disease:

Infantile paralysis is world-wide in distribution but it is more prevalent in temperate climates. It is a disease of summer and autumn, though occasional cases may occur during any month of the year.

It is a disease of childhood, although it may occur at any age from infancy through maturity. About 60 per cent of the patients are under 10 years of age, while over 80 per cent are under 15. The incidence is somewhat higher in boys than in girls, although in adults there is no such sex variation. Race and color are not significant.

While some epidemics have occurred in large metropolitan areas, when the total cases for the whole country are reviewed it can be seen that it is primarily a rural disease.

It was once suspected that the virus entered the body through the nose and the mouth, but investigators since have been giving more attention to the alimentary tract. The virus in quantity has been found in stools and in sewage. Healthy carriers of the virus with heavy infestation of the stools are a well-known feature.

TIPS TO GUARD AGAINST DISEASE

Incidence of the disease is far higher proportionately in pregnant than in non-pregnant women of the same age. Tonsillectomy also seems definitely to predispose to infection. Excessive exertion or fatigue appears to be a possible precipitating factor.

The incubation period — the time which elapses from exposure to the disease until the first symptoms develop—varies from seven to 21 days. In one patient, however, the virus ap-

peared in the stool six days after contact, yet the patient did not develop the disease until the 25th day.

Second attacks are very, very rare but they have been reported. They can be induced experimentally in monkeys, showing that immunity from previous attacks is not absolute.

There is as yet no absolute proof of an intermediate host or animal pool, no known insect agent of transmission, no definite portal of entry or recognizable initial lesion or wound, or, in fact, any typical lesion outside the central nervous system, or any precipitating or sensitizing factor.

WARNING GIVEN TO CHILDREN

Children who are well should be warned against getting in crowds, especially indoors. They should be told, too, about the dangers of swimming in pools and streams that are subject to pollution. Travel and over-exertion are to be avoided.

The milk and water supply and the general sanitation of the community should be carefully checked, especially sewage disposal. Anti-insect measures are impracticable in rural areas, where most cases originate, but much can be done to protect food supplies in stores and homes from contamination.

The onset of the disease is very similar to that of many other acute illnesses. At first the patient has what appears to be an inconsequential illness which is non-specific in type, associated with a variable amount of fever, usually

not very high and lasting 24 to 36 hours. Following this the patient has a normal temperature for from one to eight days, on the average two to three days, and he feels well or relatively well, only to develop a more severe type of acute illness which is associated with evidence of involvement of the central nervous system. In the second phase of the illness, headache may be very severe in adults, although this is not so likely in children. Muscle soreness appears in various areas but usually first in the neck and back, where a feeling of stiffness may be described. Straight leg raising becomes very limited, as does forward flexion of the neck and back. Paralysis is likely to occur on the second to the fourth day. It ordinarily reaches its maximum extent within 48 to 72 hours after it appears, although certain patients have continued fever and progressive paralysis for several days, even to fatal termination. Once the fever has returned to normal for 24 hours, it is unusual for further paralysis to occur.

The average mortality in recent epidemics in this country has been seven to eight per cent. In general the death rate in recent years has been lower than in earlier epidemics.

On the whole, the prognosis in poliomyelitis is favorable, and one may agree with one author who states that "with good care 75 to 85 per cent of the cases will show marked improvement or complete recovery."

The primer concludes with the statement that patients with poliomyelitis are not cured—they recover, and physicians only can assist in that recovery.

Greatest Postgraduate Course in Medicine Is A. M. A. Session

In reviewing a year of medical progress, Morris Fishbein, M. D., says that the recent 95th annual convention of the American Medical Association in San Francisco was "the greatest one-week postgraduate course in medicine available anywhere."

Writing in the current issue of *Hygeia*, the health magazine of the American Medical Association, Dr. Fishbein says in part:

Whenever a great discovery is made in any field of science, investigators try immediately

to find out whether or not it is applicable in any way for the improvement of health. Thus the studies that led toward the development of the atomic bomb turned the attention of medical investigators toward the possibilities of atomic energy and radioactivity. As a result, it was found possible to make elements radioactive. These elements are then injected into the human body. They are carried by the blood directly to certain organs which seem to have a special affinity for those elements. The radio-

activity goes along and acts on the cells of the organs concerned. These substances are called radioactive isotopes. Now radioactive iodine is being used to treat excessive action of the thyroid gland, radioactive phosphorus for excessive numbers of white blood cells and red blood cells, and other radioactive elements to attack growths in various organs of the body. Furthermore, instruments have been developed which can trace the passage of these isotopes through the body so that it becomes possible to determine the time of circulation and whether or not there are any impediments to free circulation of the blood.

STUDY BLOOD DERIVATIVES

The work on blood and its derivatives, which has been considered one of the greatest medical developments of the war, has led now to the possibility that substances may be found in the blood capable of controlling hemophilia, the hereditary bleeding disease that caused the deaths of the heirs to the thrones of Russia and Spain. Other derivatives of the blood are being used to overcome loss of protein through the kidney in nephrosis and to prepare patients suitably for operation and to improve their nutrition after operation.

During the war thousands of preparations were tested as to their effects on malaria. Out of these studies have come several new preparations which are believed to be more effective in malaria than any heretofore known. During the war these discoveries were closely guarded because malaria could incapacitate an entire army and thus the disease was of great strategic importance. Now these discoveries will be applied to help clear many sections of the earth of this dread disease, making them fertile and inhabitable. Associated with the use of these new malaria remedies will be use of DDT for destroying the mosquitoes that carry malaria.

Attention was paid also to a new vitamin factor called folic acid, which has been found equivalent in many ways to liver extract for stimulating the development of red blood cells in cases of pernicious anemia. Physicians from various parts of the country have tested this new preparation with great satisfaction.

EPILEPSY TREATMENT DISCUSSED

The new remedy used in the treatment of epilepsy and other convulsive disorders, tridione, was discussed by several doctors. The drug has apparently useful activity for relieving pain as well as controlling convulsive seizures. Tridione seems to be specifically of value for the type of epilepsy called petit mal but in combination with other drugs it seems to be able also to reduce other forms of seizure affecting the brain and the motor activities of the body. The drug seems to be of less value in the severe form of epilepsy called grand mal.

The experiments with war gases led to the discovery of an antiarsenical substance commonly called British antilewisite or BAL. This substance is valuable in treating poisoning by arsenic, mercury and other metals, and also in overcoming serious reactions when arsenic is used in the treatment of syphilis. Drugs like arsphenamine (formerly called salvarsan or 606) and mapharsen depend on arsenic for their activity against the spirochetes.

Derivatives of mustard gas have been found effective in lowering the total number of white blood cells in cases of Hodgkin's disease and leukemia. These derivatives are in an exceedingly early experimental stage but the effects already established indicate possibilities of ultimate control of these heretofore almost invariably fatal diseases.

CURARE AS RELAXING AGENT

Significant also were reports on the use of the substance called curare, a derivative of the South American snake poison, in the control of spastic disorders. This drug, used in proper amounts, relaxes muscle spasms. It has, therefore, been used in the treatment of infantile paralysis. More important probably is the use of the drug as a relaxing agent before giving anesthesia with one of the gases like ether or ethylene or cyclopropane. The use of such a relaxing substance makes possible the use of less of the anesthetic agent than would otherwise have been required. Specialists in anesthesia are now studying the effects of this substance on the tissues of the body generally so as to determine its maximum uses and any possible dangers that may be associated with its use.

New and Useful Instrument

Pocket Otoscope

This instrument takes up but little more space in the pocket than the usual penlight of the Bond or Winchester type.

The slotted adjustable speculum permits a larger field of vision of the ear drum or canal.

The light source has a lense tip and gives brilliant illumination of the ear drum.

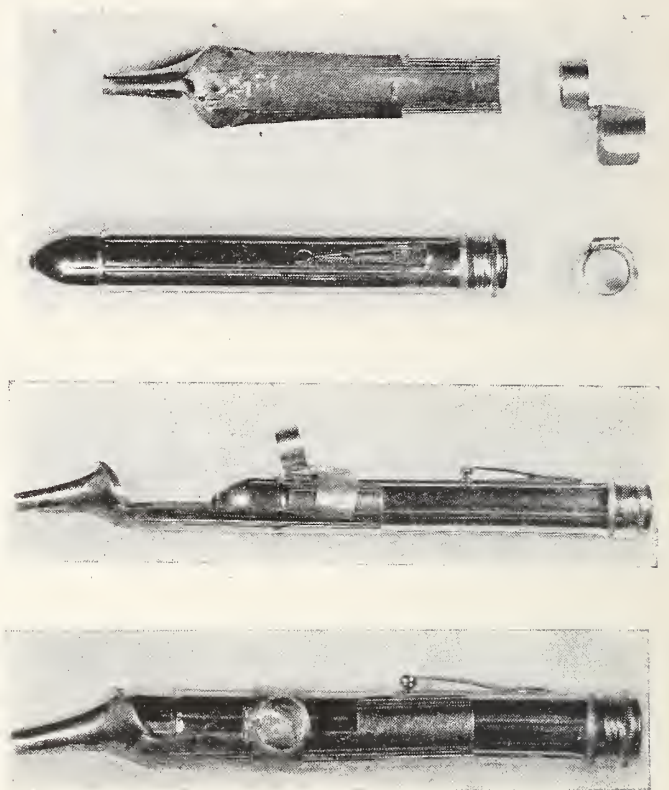
The lense is 12mm. in diameter with a focal length of 80mm.

The axis of the speculum is inclined about 10 degrees with respect to the horizontal light line.

Details of construction are readily seen in the accompanying photographs.

U. S. Patent No. 2,292,237 has been granted for its manufacture and sale.

ARTHUR H. PARCHER, M. D.,
Ellsworth, Maine.



Address of the Guest of Honor—Continued from page 237

to carry out the policies of the board and to act as chief executive, is also a man among men or a woman among women? Has this individual the light for which we are searching? Doctors, nurses, everyone identified with the institution, as they benefit from modern science, education and efficiencies, are they revitalizing their efforts to serve others?

Idealistic unquestionably, but where might we hope to find idealism if not in our hospitals? For the same reason, should we not discourage from entering such professional field, any who lack this essential attribute.

We have forged ahead too fast perhaps for

our own good. It is satisfying and needful to look back now and then to measure the progress we have made, also to determine whether we are heading in the right direction. Is our path leading us toward the light, that light which is symbolic of courage, of faith, of charity, of unselfish spirit, of the desire to serve, or does it fade into total darkness?

As we stand at the crossroads, let us offer a prayer of supplication that we may through the eyes of a boy, renew our faith in the light of service to others, and that we may be given the strength and the years, and the desire to keep that light burning.



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Hospital Survey and Construction Act

With the signing by the President of the Hospital Survey and Construction Act, an appropriation of 375 million dollars is authorized during the next five years for the construction of hospitals and health centers. Three million dollars is also authorized for State-conducted surveys of need. These must be made preliminary to the granting of Federal funds for construction.

The Act provides latitude for each State to develop its own program of hospital and health center construction, to be administered by State authorities under standards specified by the United States Public Health Service. The Surgeon General will be assisted in establishing standards by a newly created Federal Hospital Council consisting of eight members to be appointed by the Federal Security Administrator.

"This Act sets for the first time a national policy which makes it clear that hospitals in the future must be planned, located and operated in relation to the overall health needs of the people," Thomas Parran, Surgeon General, U. S. Public Health Service said. "This policy, as evolved through the leadership of hospital authorities of the country, is recognition of the integrated role that hospitals and health centers must play in the future. Adequate hospitals, health centers and related physical facilities are the essential workshops, without which it is not possible to provide even a minimum of modern health and medical services."

Any State may initiate action by submitting a request to the Surgeon General for funds to carry out an inventory of existing hospitals, and to prepare a plan for the construction necessary to provide adequate care for all the people. In making the request, the States must designate a single State agency to carry out the survey and planning and must appoint a properly qualified advisory council to consult with the State agency. The proportionate share for each State of the total Federal appropriation for survey and planning will be determined by the populations of the several States. However, Federal funds must be matched by two to one in defraying the survey expenses.

Allotments for the actual construction of facilities will not be made until the State plan based on the survey findings has been approved. Construction allotments to individual States will vary in amount. Population will be one factor, and in addition, the average per capita income will be used in the allotment formula in such a way that States with a lower per capita income, where there is relatively greater need for medical facilities, will receive proportionately larger allotments per capita.

Applications for funds for individual construction projects must be channeled through the designated State agency. Here again, Federal funds may not exceed one-third of the cost of a project. Before any single project is approved by the Surgeon General, sufficient evidence must accompany the building request to show that two-thirds of the total cost of construction is available from other-than-Federal sources, and that financial support is adequate for the maintenance and operation of the institution after completion.

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RESEARCH IN THE SERVICE OF MEDICINE

Proceedings

NINETY - SECOND ANNUAL SESSION

Maine Medical Association

POLAND SPRING, MAINE

June 23, 24, 25, 1946

FIRST MEETING OF THE HOUSE OF DELEGATES, JUNE 23, 1946

The House of Delegates of the Maine Medical Association convened in the Ball Room of the Poland Spring House, Poland Spring, Maine, on Sunday, June 23, 1946, at three o'clock in the afternoon, with Dr. John O. Piper, of Waterville, President-elect, presiding.

CHAIRMAN PIPER: The meeting will please come to order.

We will first have the roll call by our Secretary.

(The roll call by the Secretary, Dr. Frederick R. Carter, revealed a quorum present.)

CHAIRMAN PIPER: The next order of business is to appoint a Reference Committee. The object of this Reference Committee is to facilitate the business of the meeting tomorrow afternoon, particularly. Of course, there are certain things that will come up for consideration and for the Association to consider, which will require quite a lot of thinking and talking over, so I shall appoint this Committee, and wish that you would talk it over with the respective committees from your section so that it will facilitate matters and obviate the necessity for a lot of debate. I appoint Wilbur F. Leighton of Portland from the First District, Chairman; Charles Otis Tibbetts of Auburn from the Second District, C. Harold Jameson of Rockland from the Third District, Thomas C. McCoy of Waterville from the Fourth District, James H. Crowe of Ellsworth from the Fifth District, and John E. Smith of Bangor from the Sixth District.

For the Nominating Committee, I appoint Warren E. Kershner of Bath as Chairman, with Charles W. Kinghorn, Ralph A. Goodwin, George E. Young, Walter N. Miner, and Ernest E. Young. (This Committee to draw up a slate of Standing Committee members for 1946-1947, and report to the Second Meeting of the House, Monday, June 24th.)

The next item of business on the agenda is the report from the Council by Dr. Forrest B. Ames of Bangor, Chairman.

DR. FORREST B. AMES: Mr. President and Gentlemen. To a certain extent, I think the report of the Chairman of the Council is more or less of a formality. The Council has tried, this year, to keep the members informed of the most important items on which they were having discussions; and you have each received more than one letter from the office in Portland, telling you the things about which the Council has been talking, and informing you of some of the votes which the Council has taken.

However, in order to complete the record, I will give you a report of the work of the Council during the past year. Counting the meeting held this afternoon, the Council has met seven times; four times in Augusta, twice in Portland and the present one at Poland Spring, since June, 1945. We have given con-

sideration to certain problems and it probably would be wise if I were just to enumerate these, and then suggest recommendations which the Council would like to have you consider, and vote on as you see fit.

One of the first questions which was taken up by the Council for consideration was a re-discussion of prepaid medical care. You will remember that two years ago, this matter came before our Council. It was investigated, and it was reported to the House of Delegates that the Blue Cross refused to write a plan for the Maine Medical Association as a unit, and insisted on including the osteopathic organization. On that basis, it was recommended that we not adopt such a plan, and the House of Delegates so voted. The matter was reviewed again during the past year, especially in view of the activities in Washington of sponsors of the Wagner-Murray-Dingell Bill. It seemed that if Maine needed a medical plan, such a plan should be worked out. A committee was appointed by the Council to study this particular matter. I want to read the report which came from that Committee, relative to their study of the question of prepaid medical care plans for the State of Maine.

(The report of the Chairman of the Committee to Study Prepaid Medical Care Plans follows in part.)

June 7, 1946.

Forrest B. Ames, M. D., Chairman,
Council of the Maine Medical Association,
489 State Street,
Bangor, Maine.

Dear Dr. Ames:

Your Committee on Prepaid Medical and Surgical Insurance has only frustration to report after three meetings, the first one at Augusta, the second at South Portland, and the third at Westbrook.

The Committee, as you recall, was composed of Eugene H. Drake and George O. Cummings of Portland, Frank A. Smith of Westbrook, M. Tieche Shelton of Augusta and myself. The third meeting we held was attended by Mr. Paul A. Webb and his assistant, Mr. Walter Black.

All this leaves us recourse only to casualty companies or a State Medical Society affair. We believe at present that neither is feasible, and would prefer to wait for leadership of a nation-wide plan with State sub-divisions under general supervision of the A. M. A., at least to have as a pattern for the whole.

Thanking you very much, I am

Very sincerely yours,

/s/ EDWARD L. HERLIHY, M. D.,
Chairman.

The next item which the Council considered was the matter of preliminary plans for the establishment of a medical school in Maine. There again a tremendous lot of fine work has been done, and you have received in the mail recently a mimeographed report

of progress to date, which was worked up by the active chairman of that particular committee. That, of course, I won't attempt to read, because each of you has a copy of it. Later on, Dr. Herlihy will explain to you the details of the work as it has gone on, up-to-date. The Council listened to his reports, and they have been placed on file.

The third item before the Council was consideration of the employment of an Executive Secretary. Dr. Leighton will give you a much more detailed account of why an Executive Secretary is considered necessary. In general, it is felt that the affairs of the Maine Medical Association can be guided by the advice and the help of a full-time, well-trained person who can be a liaison between the different medical groups and societies, and who can keep us informed and who will represent us in Augusta, in case legislative efforts are necessary, and, in general, supervise, much more efficiently than any medical man, the affairs of the Association.

It immediately became apparent that if an Executive Secretary were to be employed, it would be necessary to raise more revenue for the expenditures of the Association. With that in mind, the Council gave considerable study to the question of increasing the dues, and planning a recommendation to the House of Delegates that an increase in the dues be included in the new Budget. It was figured, originally, that \$35.00 per member would be necessary to take care of the salary of a highly trained man, and the incidental expenses of running the office of such a type of man. That figure will be discussed a little later, when I present the budget.

The next item on our agenda this year had to do with the consideration of veterans' affairs. At a meeting held in Augusta, Mr. Webb, director of the Associated Hospital Service of Maine, came before the Council and represented that he had been in Washington, and that the government was in a hurry for some official action to be taken by the Maine Medical Association to designate some person to take care of the financial arrangement between the Veterans' Bureau and the physicians of the State of Maine, in their care of returned veterans. Mr. Webb said that the Associated Hospital Service was prepared to take on this extra burden, in spite of the remark you remember appeared in the letter relative to the insurance, in which he said that he couldn't carry any more detail! However, following the lead Mr. Webb had given, the Council accepted his proposal as an emergency measure and voted to accept the fee schedule which Mr. Webb submitted, and also to approve the Associated Hospital Service as the liaison between the Veterans' Bureau and the Doctors. Fortunately, it was voted that this action of the Council on this matter which had been presented to us as an emergency measure should be subject to review by the House of Delegates.

Sometime after the meeting to which I refer, each of you as a member of the Maine Medical Association, received from the Associated Hospital Service in Portland, several mimeographed sheets. One of them was a copy of the contract which had been signed by Dr. Leighton as President of the Maine Medical Association and Dr. Carter as Secretary, in which were stated the facts I have just given to you. In that same group of papers was the contract which each of you was asked to sign, if you wish to participate in the Veterans' plan. In addition there were some mimeographed sheets to which I want to call your attention, because they form the basis of the action which the Council wishes to recommend to you. In paragraph 1, it said that the Associated Hospital Service of Maine, reserved the right, however, "to decline any particular case" — in other words, the Associated Hospital Service of Maine, by that statement set itself up as the interpreter of the worthiness

of any case which might be presented to it. It also said that in unusually involved cases not scheduled, the recommendation of the Associated Hospital Service of Maine will help determine the fee. In other words, the Associated Hospital Service has seemed to set itself up as the interpreter and the judge of the activities of the medical members.

No action was taken on that particular item at the moment, but the Council did authorize the appointment of a Veterans' Affairs Committee, which has been appointed and will be announced later by Dr. Piper, to represent the Maine Medical Association in all affairs having to do with the care of returned veterans, and all problems which may come up. That, we felt, was something which might cover the Maine Medical Association in its future dealings.

Based on the studies made of the foregoing questions, the Council presents certain recommendations to you as a House of Delegates, for your consideration, and for your vote, of course, as you see fit.

1st. In the first place, in view of the fact that we have again been stymied on the subject of prepaid medical plans, the Council would recommend that the House of Delegates' vote that the study of prepaid medical care plans be continued by another committee to be appointed by the President, to give us any ideas which they think will be of help, and that this Committee be authorized to take any steps necessary to secure an enabling act, which would empower the Maine Medical Association to adopt a representative insurance plan, when such can be formulated. This is simply to give a new committee authority to go before the Legislature and get for the Maine Medical Association any legislative power they need to carry on the plan, if and when it comes up.

2nd Recommendation: That the House of Delegates of the Maine Medical Association go on record as being in favor of the establishment of a medical school in Maine as soon as feasible, and that a committee be named by the President to carry on further plans.

3rd Recommendation: That the House of Delegates of the Maine Medical Association express approval of the efforts of the National Physicians' Committee in opposition to the passage of any Federal legislation which would bring about governmental control of the practice of medicine. In explanation of that, I might say that in the winter, Dr. Drake of Portland and Dr. Herlihy of Bangor went to St. Louis and attended a meeting of the National Physicians' Committee, which was making plans to go before the Senatorial Committee hearings on the Wagner-Murray-Dingell Bill. The work of the National Physicians' Committee so impressed the two doctors that they have brought back to us the suggestion that we go on record as approving the efforts of the National Committee and that is recommended by the Council to you, the House of Delegates.

4th Recommendation: That the Maine Medical Association employ a full-time Executive Secretary. This is to be made possible by the 5th recommendation, which is the approval of the increase in dues for the year 1947 to \$25.00 per member.

6th Recommendation: That the emergency agreement between the Council representing the Maine Medical Association and the Associated Hospital Service, Inc. of Maine, be held in abeyance, subject to new conferences between the Veterans' Affairs Committee of the Maine Medical Association, proper officials of the Veterans' Administration, and the Associated Hospital Service of Maine, Inc. It is understood that any new agreement will give proper representation and authority to the Maine Medical Association. And that brings me to the final item which I am supposed to present to you this afternoon; the Budget for 1946-1947 as recommended by the Coun-

PALATABILITY AND NUTRITION FACTORS

of

Campbell's STRAINED BABY SOUPS



Q. What is the importance of palatability?

A. A leading pediatrician has pointed out that even in the early months of life infants are able to detect minute differences in flavor. The appealing palatability of Campbell's Strained Baby Soups is, therefore, an advantage. It should further be pointed out that all the "tastes" in these soups are the wholly natural ones of the meats, vegetables and cereals used.

Q. Why are the different ingredients selected?

A. Campbell's Strained Baby Soups are planned to provide a balance in nutrients to supplement the daily milk diet. Since it takes many different foods to supply the approximately 40 nutrients needed for infant development and energy, we use vegetables and a cereal in preparing each of the four meat soups. Flavor is improved, too. For instance, liver alone has too strong a taste for some babies, but blended with vegetables, palatability

is enhanced. It should also be noted that these soups are intended for use as early in normal infancy as any other strained baby foods.

Q. What measures are taken to conserve food constituents?

A. In preparing these Baby Soups, Campbell's have developed a method, based on the latest scientific knowledge, which retains the minerals and efficiently conserves the vitamins.

A comprehensive analysis of each soup may be had upon request to Campbell Soup Company, Camden, New Jersey.

**5
KINDS:**

CHICKEN
BEEF
LAMB
LIVER
VEGETABLE

All in Glass
Jars



Campbell's Strained Baby Soups represent fine quality . . . in ingredients . . . in care and method of cooking . . . in retention of minerals and conservation of vitamins . . . and in good flavor. Every resource of Campbell's Kitchens is devoted to that aim.

LOOK FOR THE RED-AND-WHITE LABEL

cil. The Budget for 1946-1947 has been studied on the basis of our expenditures in the past few years, and as we have run during the past year, plus the addition of estimated increases, if this group approves the idea of having a full-time Executive Secretary. In giving a new budget for the present set-up, we have made no changes. I shall not read the figures as these have appeared in the JOURNAL. They have to do with the expenses of the various officers, the salaries of the Secretary and the Assistant Secretary, office expenses, traveling expenses, committee expenses, state delegates, delegate to the A. M. A. and other items of ordinary, routine expense of the Maine Medical Association. The budget is set up for 1945 and 1946 for \$7,400. The total expenditures from that budget were \$6,700. In other words, partly due to the fact that the JOURNAL this year paid for itself, an item which had been set at \$500 was not used, and other small items make up the difference in savings, so that this year, we were within a few hundred dollars of spending money which was appropriated in the current Budget. The Council has recommended that the same proposed budget be approved for next year, in other words, a total of \$7,400 for the running of the Maine Medical Association office, the JOURNAL taking care of itself under the present arrangement. In addition, it has been estimated that in order to supply a highly trained man who would be fully equipped to carry on the duties of the Executive Secretary, plus the changes in the office set-up, plus the office supplies, plus travel, plus some new equipment, an additional \$10,271 will be necessary. Some of that will be capital expenditure which will not be repeated, but for the first year, in order to get the new office started, it has been estimated that \$10,271 is the approximate figure. The income from our dues on the present \$12.00 basis is

\$8,088. It has been figured that if our dues are increased to \$25.00, which is less than the original suggestion of \$35.00, the amount necessary to hire a full-time Executive Secretary will be available. The Council recommend the adoption of this revised budget.

CHAIRMAN PIPER: You have heard the report of the Chairman of the Council. Is there a motion to accept that in whole or take it up with the special recommendations, or how do you want to handle this matter.

A MEMBER: I move that the report be approved as given to us. This motion was duly seconded.

DR. MARTYN A. VICKERS of Bangor: Before that is done, I think it would be useful to have an explanation of the decrease from \$35.00 to \$25.00, in view of the increasing expenses.

CHAIRMAN PIPER: I will tell you what I would like to do with this matter, if it meets with the approval of the House of Delegates. I would like to call on our President, Dr. Leighton, to explain the need for an Executive Secretary and the cost of that matter, and I should like to have that explained; then I should like to refer it to the Reference Committee that I appointed a few minutes ago, and have them discuss it, and vote on it at the next meeting of this House.

A MEMBER: I was just wondering why \$35.00 was thought to be too much and \$25.00 enough? I mean, with the importance of the Maine Medical Association, and the way we have slipped along, and the speed with which things work nowadays, I was wondering, with the increasing costs, whether we are going to have high enough dues even at \$35.00.

(To be continued in the October issue of the JOURNAL.)

HOSPITAL STAFF MEETINGS

Open to the Profession

CITY	HOSPITAL	DATE
Augusta	Augusta General Hospital	1st Wednesday
Bangor	Eastern Maine General	2nd Tuesday
Bath	Bath Memorial Hospital	1st Tuesday
Belfast	Waldo County	2nd Friday
Boothbay Harbor	St. Andrew's Hospital	4th Tuesday
Caribou	Cary Memorial	1st Wednesday
Damariscotta	Miles Memorial	1st Thursday
Lewiston	Central Maine General	1st Monday
	St. Mary's General	2nd Monday
Portland	Maine Eye and Ear Infirmary	1st Wednesday
	Maine General	2nd Friday
	Mercy	3rd Thursday
Presque Isle	Presque Isle General	1st and 3rd Tuesdays
Rockland	Knox County General	1st Monday
Rumford	Rumford Community	4th Wednesday
Sanford	Goodall Memorial	2nd Monday
Waterville	Sisters	2nd Tuesday
	Thayer	Every Thursday

The above list was compiled from a questionnaire sent out by the Maine Hospital Association. Additions or corrections will be made on notification to the Secretary, Maine Hospital Association, Thayer Hospital, Waterville.



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*Sexual Crime**

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CRIME IN GENERAL

Crime represents departure from the conventional patterns of behavior prescribed by law. Since the dawn of history man has attempted to modify the behavior of his associates, seeking to obtain a conventional pattern of conduct. He has only recently recognized that this is an attempt to modify fundamental appetites and propensities; that is, instinctive drives. Savage man has been a recalcitrant pupil and there have been frequent failures.

The various categories of crime are dependent upon different instinctive drives. The vast majority of assaults and murders are an expression of aggressiveness and are sometimes said to represent the pugnacious instinct. There are crimes which are premeditated and deliberate. Such premeditation and deliberation is somewhat different from pugnacity.

The next group represents dishonesty — obtaining goods or materials of another by some illicit means. These crimes have ordinarily been attributed to the acquisitive instinct, per-

haps properly so. Of course a large proportion of this type of criminals are thieves.

A third group represents the operation of the sexual appetite and will be discussed in more detail later.

Finally, there is a cosmopolitan group which represents an unwillingness to play on the team, to abide by social regulations. The vast majority of regulatory laws, which have increased markedly in the last few years, have resulted in a tremendous number of this class of offenders. Drunkards perhaps fall within this group, as do violators of automobile, plumbing and sanitary laws, etc.

SEXUAL IMPULSE

Among the forces which motivate human behavior none is more powerful or more important than the sexual appetite. While in human beings the expressions of this force seem very complicated and are referred to in psychological terms, nevertheless the facts concerning the matter are comparable with those having to do with fertilization throughout nature. In other words, it has been arranged through a universal

* Presented at the 92nd Annual Session of the Maine Medical Association, at Poland Spring, June 25, 1946.

principle that all living matter shall be reproduced. Since this is teleological reasoning, it is perhaps better to say that human nature, in these matters, functions according to certain laws. When we reach the stage of development where each sex is represented by a different organism, arrangements have been made for bringing the two sexes together in a functional way. Human imagination could not have conceived of the multiplicity of ways in which fertilization takes place among plants. While this function seems to be carried out in many cases as if by accident, common sense alone makes it obvious that the operation is entirely according to universal law. Functionally, the spring which throws the seed of the touch-me-not, the wings which carry the maple seed, the floss which enables the milkweed to be borne to a distance, the honey-bee which carries the pollen from plant to plant, are all different devices by which parts of this great purpose are carried out.

In some of the lower organisms it seems obvious that the attraction between the two sexes is directly chemical, and mating may properly be referred to as a chemical reaction. It does not take much imagination to carry this concept through the whole gamut of living matter. In human beings the coming together of the spermatozoa with the ovum is analogous to the coming together of the lower organisms. Among lower animals a considerable part of the time spent by the male has to do with seeking an opportunity for this chemical reaction to take place; that is, we early see the aggressive role assumed by the male and are inclined to place the female in a somewhat passive role. If one watches the rooster in the barnyard, it is apparent that what little mind he has is constantly concerned with mating. Before he eats, he clucks and calls his harem about him, then suddenly pounces upon one of them in the sexual act. His whole life is thus divided between efforts to get the pleasant sensations which come through satisfying the appetites for food and sex.

The role of the female is not so readily discernible. The hens at least affect to be afraid of him; they attempt to get away from his attack, and it appears as though they were overpowered by his greater strength and daring. Yet there is a conventional posture which they

assume quite readily during the sexual act. Furthermore, if mature hens have been without a male long enough so that there is danger of their eggs not being fertile, when a male is introduced, they will immediately crouch down to receive him without resistance. This situation has its analogies throughout the animal kingdom.

Among human beings it is quite obvious that the male is always on the alert to notice the female. On the street, in the office, in stores, everywhere his eye, ear and nostril are constantly appraising the female as if she were a possible mate. The fact that society has tabooed promiscuity has merely driven the expressions of a universal interest under cover. One of the chief evidences of a cultivated mind is the ingenuity with which sex interest is concealed from the vulgar gaze. Again the role of the female is not quite so clear. She readily seizes every opportunity to enhance her sexual assets by dress, perfume and behavior, and yet, like the hen, she affects surprise, to be startled or even offended by the advances of the male. Whatever component of aggressiveness there is in her, sex interest is so carefully concealed or so cleverly disguised as to be hardly discernible. Recent studies in differential fertility indicate that the birth-rate is greater among uncultivated people than it is among the higher social strata. While this does not mean that sexual interest is less, it does, perhaps, mean that the expressions of this interest are less common.

SOCIAL RESTRICTIONS

Throughout nature the attraction which brings together males and females with resulting fertilization and reproduction is carried out, for the most part, with utter promiscuity. The male, as with pigeons, may mate for a while, but he is soon ready for another mating. There are very rare instances of any degree of constancy in the attachment between the sexes. The fox is said to be difficult to breed because of a tendency to stay with his original mate. The wren, however, attempts to mate with his half-grown daughter and the ram with his mother. All that is essential, therefore, for mating to take place is the presence of a male and a female of any category.

Man is peculiar in this regard. While there is abundant evidence of the biological promiscuity of the human being, there is no example where promiscuity has social sanction, and monogamous marriage tends to be the rule. If we review the various societies inhabiting the earth, every possible experiment has been carried out in an attempt to arrange for the most satisfactory compromise between biology and sociology. Restrictions have been placed upon individuals as to age and race. Elaborate taboos have guarded against union between persons with common blood. In the most primitive society incest is usually taboo and offenders are promptly destroyed. The consent of the female is necessary except under extraordinary circumstances.

The sexual appetite is fundamental and its operation is biologically necessary to society. It is enhanced by all sorts of romantic and sentimental features, but basically it is laid down in the older part of the nervous system almost as a reflex. Man attempts to control this reflex and regulate the sex life of his associates. Conventional patterns have been set up, deeply ingrained in the mores of every society. Though not always the same, they have a basic similarity. They place the expression of what is a normal appetite in very restricted fields. Theoretically, at least, any overt expression of the sexual appetite outside of marriage is a crime. Legal sexual expression is only possible with mature members of the opposite sex. Sexual crime, then, is any expression of the sexual appetite outside the limits prescribed. Presumably any gratification of this appetite in a monogamous marriage is normal. Therefore, we are constrained to say that the conventional sex is normal sex, and unconventional sex is crime.

DEVIATIONS IN SEXUAL BEHAVIOR

Deviations from the conventional in sex behavior will be discussed under the following headings:

I. *Deviations from Social Requirements*

1. Lewdness
2. Lewd and lascivious cohabitation
3. Carnal abuse of a female child
4. Rape involving violence

5. Incest
6. Bastardy
7. Fornication
8. Abortion
9. Venereal disease
10. Prostitution
11. Adultery
12. Fraud
13. Middle man

II. *Deviations from Biological Pattern*

1. Cruelty—sadism
2. Exhibitionism (indecent exposure)
3. Homosexuality
4. Fetishism
5. Abnormal appetites (children — aged — racially different — animals — rape of the dead)

III. *Morbid Types*

1. Feeble-mindedness
2. Insanity
3. Senility
4. Alcoholism
5. Morbid jealousy
6. The "Peeping Tom"
7. "Jack the Snipper"
8. Suicide pacts
9. Infatuation

I. DEVIATIONS FROM SOCIAL REQUIREMENTS *Lewdness: Lewd and Lascivious Cohabitation*

Crimes which usually fall under the caption of lewdness and lewd and lascivious cohabitation represent more or less normal biological function but are usually flagrant violations of the decencies of life.

For instance, a young woman is picked up by a sailor on Boston Common and they seek a park bench for purposes of sexual gratification. Witnesses to the scene profess to be shocked and a policeman soon appears. The couple are arrested and taken to a police court. If their situation is such as to arouse a good deal of sympathy, they may be merely fined or put on probation as idle and disorderly. Ordinarily they are charged with one of the above sexual

offenses, a small fine is levied, and they go on their way.

This means very little in terms of mental deviation, but usually indicates a cultural level below the median. Of course, such a crime is tremendously common in commission, but rarely gets punishment. In the year 1940, there were 180,916 arrests in the State of Massachusetts, only 3,803 of which were classified as sex offenses. During that same year there were 14,077 persons sentenced to jails or houses of correction, only 531 of whom were classified as offenders against chastity, decency and morality. In other words, this would tend to indicate that society cares little about the sexual vagaries of human beings, provided they keep such vagaries out of sight.

Carnal Abuse of a Female Child

Carnal abuse of a female child, or statutory rape, involves sexual knowledge of a child under sixteen years of age—at least in Massachusetts at the present time. Although such individuals are commonly branded as monstrosities and degenerates, here again this means very little biologically. It usually means that an adolescent girl under sixteen years of age, who has very little supervision by her family and is allowed to run the streets, is approached, successfully or unsuccessfully, by an older man for some reason under deprivation of opportunity for normal sexual life.

A storekeeper of 51, whose wife was sickly and who had had no sexual life for many years, was attracted by a young girl of fourteen, who came to his store to buy candy. She knew what he was about and soon accepted his caresses for a small fee, sometimes a stick of candy, sometimes 25 cents. She was quite mature sexually though legally below the age of consent, and they developed regular sexual relations. Her mother, becoming curious as to the source of her money, did a little detective work and discovered what was going on. The police were immediately brought in. The man, being essentially a good man, knew little of the wiles of the police court and so pleaded guilty. He was referred to a criminal lawyer, who immediately took a large deposit on account and started trading both with the family, with the court, and with the culprit. The man finally paid a

large fine, was put on probation and, stripped of quite a large part of his life savings, is sure it will never happen again.

Another man of 36 was foreman in the cutting room of a factory where a number of young girls were employed. He was married and there appeared nothing unusual about his situation, but he was attracted to these young girls sexually and began taking them out to ride in his automobile. After a while it was discovered that two of the girls were pregnant. He fled to another state, but was apprehended, admitted his guilt, and was given ten to twelve years in state prison. Examination showed no deviation that could be detected in his personality. He had had but one previous arrest and that was for speeding.

A little lower in the social scale is the case of a coal-barge captain, who had a room in a slum district which he occupied when ashore. He soon found that the fifteen-year-old daughter of the house was willing to have sexual intercourse for two dollars. This man had been married but was a widower. He had had no previous arrests. He was given three to five years in prison.

Rape Involving Violence

Rape involving violence is another matter. This is usually committed by younger people with a record of other types of crime, and alcohol is quite often a factor.

A man of 24 lay in the woods through which a young woman passed on her way to the store. He sneaked up behind her, threw her to the ground, beat her until she was exhausted, then assaulted her. He was arrested a few hours later, was drunk at the time of arrest, and his hands and arms were bloody. Examination by the Department of Mental Disease showed him to have a mental age of eight years and it was stated that he was frequently drunk. He was sentenced to twenty to twenty-six years in state prison. His previous record of arrests is as follows:

- 10/26/18 Trespassing
- 1/27/19 Gambling on the Lord's Day
- 2/10/20 Drunkenness
- 6/10/21 Obstructing sidewalk
- 9/16/21 Obstructing sidewalk

11/25/21 Larceny
 11/25/21 Accessory before the fact
 9/15/22 Drunkenness
 4/11/23 Drunkenness
 12/14/23 Drunkenness
 3/28/24 Robbery
 9/18/24 Drunkenness
 10/24/24 Breaking, entering, larceny, assault
 on police officer
 10/27/24 Drunkenness
 11/10/24 Default removed
 1/20/25 Drunkenness
 1/26/25 Assault on police officer
 2/10/25 Breaking, entering, larceny
 2/21/25 Default removed
 4/13/25 Drunkenness
 6/22/25 Accosting female
 10/19/25 Drunkenness and accosting female
 10/27/25 Accosting and annoying
 12/ 7/25 Drunkenness
 2/18/26 Default removed
 5/ 4/26 Drunkenness and annoying officer
 8/23/26 Drunkenness and rape

J. M., aged 21, held up a couple in an automobile, took their money, then ordered the girl into the woods, where he pounced upon her, beat her severely, and then committed rape upon her. He had been arrested for assault, disturbing the peace, breaking and entering, and larceny on two different occasions and had recently been discharged from a reformatory. He was neither insane nor feeble-minded but was of an inferior type. He was sentenced to ten to twelve years in prison.

Incest

It is obvious from a study of comparative anthropology that a taboo against sexual relations with near relatives is universal. Yet man is the only animal that places any such limitation. There has been a good deal of speculation as to this without decisive opinion. This crime is probably more common than criminal statistics would indicate. My reason for this belief is that it is only discovered through pregnancy or where there is a quarrel between the husband and wife, and the wife turns her husband in. It usually implies a pretty primitive social status and often feeble-mindedness. The male is most often an older person whose conventional sex life has been interrupted.

C. W., aged 41, married, had three children, the youngest a daughter. He had had no previous arrests. He had been somewhat of a drunkard and was diagnosed as a psychopathic personality at the state hospital, but almost entirely on the basis of this offense. He was severely injured when he was eighteen and had been considered somewhat peculiar ever since. At twenty years of age he had been forced to marry a cousin thirteen years his senior. It was brought to light that he was indulging in sexual intercourse with his daughter, who was under sixteen years of age. This girl said this had been going on since she was seven years old, and that her father threatened her harm if she exposed him. He received a sentence of eight to ten years in prison.

R. K., aged 54, was a widower with five children. He had had seven arrests for drunkenness. While lying in bed with his daughter, fifteen years of age, he became aroused sexually and had intercourse with her. She became pregnant. He was accused, convicted, and sentenced to three to five years in state prison.

C. R. W., aged 46, was a married man with seven children. He worked at odd jobs, and was reported to be mentally inferior and of a low cultural level. His daughter was taken to a doctor and found to be pregnant. She accused her father and investigation showed that he had had intercourse with all of his daughters after they reached the age of twelve. He was sentenced to eight to twelve years in prison.

Of eighteen cases of incest recently studied, thirteen of the offenders were older, married men whose wives had either died, were in hospitals for mental disease or tuberculosis, or were separated for some other reason.

Bastardy

Although the biological necessity of union between the sexes is universally recognized and although the frailty of human nature in such matters is likewise conceded, there is no greater ignominy that can come to a young woman than to become illegitimately pregnant. If satisfactory arrangements can be made, such as a

so-called "shotgun marriage" or a financial settlement, the matter may be kept entirely secret, but if it is brought before the courts and a charge of bastardy made, both parties are forever dishonored. In natural history, the charge of bastardy is no different from the charge of *fornication* except insofar as the pregnancy is concerned.

Abortion

Many persons, under the stress of a bastardy charge, arrange to have a criminal abortion done. There are always low-level members of the medical profession who engage in such a pursuit, but a large number of criminal abortions are performed by non-medical persons. The abortionist, like the prostitute, is "patronized but despised." An unsuccessful abortion terminating in death results in a charge of manslaughter or even first degree murder.

A young clergyman, attractive and talented, was accused of being the father of a woman's expected child. The couple cast about in their despair and finally decided upon an abortion. While sitting in a tub of hot water, the woman was given a dose of prussic acid, which of course, immediately killed her. Whether this was the intended result or whether it was a mistake has never been known. The man went into a panic of hysterical excitement while in jail and castrated himself. As a result, he was convicted of first degree murder and electrocuted.

Venereal Disease

Since attempts have been made to control venereal disease through public health procedures there have been a certain number of arrests for violating the sanitary code. These violations are no different from those having to do with other infectious diseases. From time to time certain primitive persons are arrested in Massachusetts whose crime appears to be in response to a superstition that intercourse with a virgin will cure venereal disease. This has resulted in attacks upon young children.

Prostitution

Prostitution is said to be one of the oldest professions. At any rate, there is evidence of

its existence since the dawn of history. At times legalized, it has always been considered disgraceful and has been associated with vice of low order. Typical organized prostitution is now comparatively rare in Massachusetts. There are undoubtedly many women who are "kept" by some man other than their husband, and there are many others who receive some sort of remuneration for their services. From the standpoint of the female, prostitution is analogous to stealing in the male. Whereas about 20% of the men sent to state prison are sex offenders, of 269 women sentenced to the Reformatory for Women during the year 1940, 245 were sent there for crimes against the public order. Of these, 86 were for drunkenness, often closely related to sex offenses. In other words, with the vicious, crime consists quite largely of sexual gratification as a commodity sold illicitly. During the recent war, studies of the sources of venereal disease showed a very small percentage of illicit intercourse to have been paid for, and a negligible amount coming from houses of ill fame or other organized prostitution.

Adultery

Adultery is an old crime encrusted with sordid implications, yet nobody would be so bold as to say it was of rare occurrence. Although universally the subject of restriction, it is rarely prosecuted on its own account. Usually the prosecution is for adultery carried out with some associated crime. Though divorces are frequently granted on statutory grounds, prosecution for adultery is rare.

Fraud

There are a certain number of sexual crimes involving fraud.

H. R. L., 39 years of age, married, with two children, was a night foreman at a garage. He got acquainted with a young woman of nineteen, whom he often took for an automobile ride. They had discussed marriage and one day they went to a country town and called at a house where the girl was introduced to a man alleged to be a Justice of the Peace. A marriage ceremony was performed and they went to a Boston hotel, where they spent the night,

after which the man disappeared. He was subsequently found to have a wife and two children and was sentenced to prison for two and a half to three years on the charge of abduction.

Middle Man

There is an important and substantial body of society that makes its living by pandering to the illicit appetites of respectable people. Walter Lippman has described very well this group, who through gambling, liquor and sex, although rarely prosecuted, form an integral part of the criminal life of the community.¹

II. DEVIATIONS FROM THE BIOLOGICAL PATTERN

There are certain individuals, not necessarily otherwise presenting mental peculiarities, whose sexual interests and satisfactions so far depart from normal physiology as to warrant their being considered under the concept of disease.

Cruelty

Cruelty is very closely allied to sex. In fact, the sexual act itself often tends to be associated with cruel impulses. Many writers have assumed that cruelty is always sexual in origin and the word "sadism" has been used to characterize all cruelty. Examination of the data does not warrant such a conclusion. For instance, in a recent prize fight the defeated person, before giving up, presented a picture which, in a moral world, should have inspired pity; yet the audience was savage in expressing its delight over seeing him brutally knocked down again and again. A close examination of human motivation as expressed in behavior must lead to the conclusion, it seems to me, that cruelty is a normal attribute of the human. Nevertheless, there are persons who habitually seek sexual satisfaction through cruelty, and there are a certain number of crimes which speak for themselves as indicating the sexual component. Such individuals are often older men and are frequently alcoholic.

A man of 32 hid himself in a woman's apartment during the day. When she came in, he held her up with a gun, tied her to the bed,

and treated her with extreme cruelty, culminating in a sexual act. Although the police and the whole community were on his trail, he repeated this again and again until discovered. He had had a number of residences in reformatories. Although not feeble-minded, he had a low I. Q. He had been married, was in the Army and Navy, and had been a roustabout the greater part of his life. He was convicted of rape and sentenced to life in state prison.

A boy of 15, with many arrests for various things and a history of at least two other violently cruel attacks upon young girls, in some way got a 14-year-old girl into an empty house and hit her upon the head, knocking her unconscious. She lived for several days and he perpetrated every sort of indignity upon her body, many of them sexual in origin as indicated by teeth marks upon her breasts and dissections about the vagina. Finally, he crushed her skull into minute pieces. He was convicted of first degree murder and sentenced to die, but because of his youth the sentence was changed to life imprisonment.²

In a recent case, a young couple were supposedly violently in love with each other and as a result had extraordinarily frequent sexual intercourse. The male shoved a large flashlight up the rectum of the female, causing great pain and considerable structural damage.

The famous Jesse Pomeroy case, involving the death of several boys, was before the public eye for the sixty years during which he lived in the Massachusetts State Prison. So far as I know he never admitted any degree of guilt.³

I have never known a case where a male admitted that cruelty enhanced sexual satisfaction. Fortunately such acts are rare.

Exhibitionism

There is a considerable group of individuals who get some sort of satisfaction through what is called "indecent exposure." The act appears to be an end in itself. That is, individuals otherwise normal, though perhaps relatively impotent, get a thrill out of exposing themselves, usually without erection and orgasm.

A woman, looking out a window in a city block, noticed a well dressed, fine appearing young man walking down the other side of the street. He glanced up, put down his bundles,

and immediately exposed his genitalia. He sat there until she had time to call the police, who arrested him. He was found to be 30 years old, a graduate of college with an A. B. degree, married, with one child. There had been no sexual intercourse during his wife's pregnancy or since, a period of ten months. He stated that for about six months he had been experimenting a little. He had experienced this impulse to expose himself. At times he walked along the street with his penis exposed, but this was his first really successful affair. He had no erections and had no orgasm but got a great thrill out of the experience. He was put on probation and has been under psychiatric observation since, with no relapses.

A successful young business man of 28, riding along in his car, saw a woman and a child of 12 on the sidewalk. He pulled into the curb, called the child over to the car, and exposed his penis. The child screamed and ran to her aunt, who immediately got his car number. This was within fifty feet of the man's place of business. He was promptly arrested and told the same story. He had had no erection and no orgasm. The act was pleasurable, exciting and thrilling, and appears to have been an end in itself.

Complaints were made of an individual on a streetcar. He would sit beside a woman, hold a newspaper up in front of him, nudge the woman, and when she looked, expose his penis. There was no erection and no orgasm. He was ultimately arrested. He was a deaf and dumb man of about 40, who had had practically no sex experience. A short while before his arrest he had had this impulse, had gratified it, and then almost every night had done the same thing. He was brought before the Superior Court, but because of his fine general reputation, his high earning capacity and the fact that he was the support of his mother and numerous other relatives, he was put on probation. Within a few nights he was arrested for a similar offense in a Boston theater.

Homosexuality

The vast majority of males are attracted sexually by females, and likewise the vast majority of females are attracted by males. There appears to be a certain amount of polarity about

sex interest. At one end of the pole we have individuals who are almost exclusively attracted by the opposite sex. At the other end we have those almost exclusively attracted by members of the same sex. There appears to be all possible gradations between these two extremes. Those who have no interest in, in fact often have a certain amount of revulsion toward, the opposite sex and are stimulated and satisfied by contact with their own sex are called homosexuals. Some of these individuals seem to be biologically different; that is, the males have no beard, speak in a high-pitched voice, have the attitude and manner of females, and tend to have the physical characteristics of females except for the genitalia, and they are continually pursuing members of their own sex for sexual gratification. The females have a similar relationship with their own sex. Others appear to be borderline cases, gratifying themselves with either males or females. Another group, as in the military service, prefer the opposite sex but will take their own if the opposite is not available. There is much that is sordid and vulgar associated with homosexuality, but it is ordinarily not punished unless there is some flagrant abuse.

Homosexual activities among adolescent males and females are of relatively little psychological or sociological significance. It is a common thing for boys and girls, during this period, to have some sexual experience basically abnormal. This is usually transitory and does not imply a morbid personality.

Two women, teachers in a college, aged 35, became friendly, symbolized marriage, lived together, had joint bank accounts, and conducted their whole lives as if they were man and woman. One, a big, masculine type of woman, wore men's clothes and played the part of the male; the other was a frail, clinging-vine type of person. They called each other pet names, as if husband and wife. The small woman frequently called the big one "Daddy." They adopted a cat and had an elaborate christening service, and so on. Neither has ever been in contact with the law. No one except their doctor knows that their friendship is sexual in origin.

A feeble-minded boy of 24 met two boys on a railroad track, aged 8 and 7½. He claimed to be a police officer, took away from them a

watch and knife, finally overpowered one and committed sodomy upon him. He had previously been arrested for the same offense. He was sentenced to three to five years in state prison.

Complaints were received that the caretaker of a public park had many boy friends. Investigation showed that his friendship with these boys was homosexual. He was 36 years' old, divorced, and had been arrested for non-support and once for drunkenness. He was sentenced to from one to seven years in prison.

Fetishism

There are certain individuals whose sexual appetite is so conditioned that sexual excitement is dependent upon some special object called a "fetish." They are rarely arrested because of sex offenses and this abnormality is more of medical than of criminological interest.

A feeble-minded boy, who had spent many years in a school for the feeble-minded, due to the labor shortage was released and found a job at which he was very proficient. He was getting along well until, one day, a neighbor missed her daughter's underwear from the clothesline and thought it strange that things more valuable were left on the line. The next time he was caught redhanded and the incident was reported to the police. Although feeble-minded, he could resist all the temptations of life but could not resist the charm of women's underwear on a clothesline. He did nothing with them except to store them in his room.

A college student was apprehended while taking some pink bloomers off a clothesline in a college town. His quarters were searched and he was found to have the drawers of his dresser and his clothes closet literally full of similar garments which he had collected. Although all sorts of assumptions have been made as to the purpose of this, it is often, I believe, an end in itself. I talked at great length with the college student and whereas he readily admitted that he got a certain thrill out of taking and possessing these garments, he really did nothing with them except to store them.

A teacher of 55 married a single woman of 38. Their love affair was a moderate one; in fact, up to the time of their marriage there

had never been any expression of sex interest on the part of either one. After they were married, the husband appeared to be relatively impotent. But his wife soon found that he had a mysterious closet which he kept locked and about which he was very secretive. One day she obtained the key and found in the closet a large number of women's shoes and old corsets. There was an old-fashioned windlass for drawing up corsets tight, which he used in manipulating these affairs. It was assumed that his sex life was built up around old shoes and old corsets.

Abnormal Appetites

Likewise there are individuals who are sexually attracted in unconventional ways. For instance, some older men are attracted only by younger females, others by younger males. These appetites are too varied to enumerate, but they involve persons of different race, animals, dead persons, special articles of clothing, etc.

Hardly two person's modus operandi in sex is identical. There are so-called "erotogenetic zones," which vary tremendously with individuals. For instance, some persons are stimulated by kissing, while others are repelled by this act. In some cases sexual interest is almost entirely with the genitalia, in others with the secondary sexual organs. A vast variety of technics are used to enhance the values of the sexual appetite and its expression. When these are engaged in to the mutual satisfaction of both parties, they are considered merely adjuncts to the sexual life of the individual. When they involve the infliction of pain or of gross indignities and are distasteful to one or the other party, they are considered abnormalities. Alcohol so frequently leads to the abuse and degradation of the sexual privileges of the male that it should always be considered as a possible source of difficulty.

III. MORBID TYPES

There are persons, specialists in a way, who present deviations from the biological pattern so persistently throughout their lives that they may be considered morbid types.

Feeble-mindedness and Insanity

The feeble-minded and insane do not represent a group, insofar as any specific manifestation of sexual irregularity is concerned. Nevertheless, the sex life of these individuals is often disordered and they more frequently come in conflict with the established order through irregular sexual activities than do others.

Senility

Senility carries with it a loss of normal sex interest and occasionally brings with it certain morbid interests especially concerned with attacks upon children, both males and females.

A man of 78, who had led a life above reproach, and who had been impotent for at least fifteen years, put an advertisement in a newspaper for a boy to help him. When applicants came, he took them to his bedroom and said he must examine them. He then took off their clothes, fondled them, ultimately focussing upon their genitalia and indulging in a sexual orgy. He did not have an orgasm but apparently got stimulation enough so that he did this repeatedly. He was somewhat deteriorated and showed the usual evidence of senility, but, except for this act, could not be classed as insane.

Another man of 84, also of irreproachable character, was looking out his window on a city street, when a young woman, in passing, glanced up. He smiled, she returned his smile, and they met. He had been impotent for twenty years and, so far as this woman knew, never had an erection. However, he took her to his office, fondled her and manipulated her sexually, becoming somewhat excited but never having an orgasm. This was continued for some little time, of course accompanied with very costly presents to the woman. Finally, a lawyer was brought in by her husband and the man was "shaken down" for several hundred thousand dollars, which he readily paid to escape notoriety. The lawyer was subsequently prosecuted for irregular practice. Otherwise this case never would have come before the public.

Alcoholism

The alcoholic, if he drinks to excess, undergoes a progressive diminution in sex capacity

but often a seeming increase in sex desire. This often leads to grossly sordid irregularities and even to brutality and cruelty. He is less and less able to perform sexually. Furthermore, because of his alcoholic habits, he becomes less and less attractive to his wife. Associated with this there is often an extreme degree of jealousy, amounting almost to insanity. He suspects his wife of decreased interest in him because of an interest in someone else.

Morbid Jealousy

Likewise there are individuals, both male and female, who are not alcoholic, yet whose jealousy of their mate is of such nature as to make life intolerable. They do not have hallucinations and do not have delusions, but they are so extremely suspicious that they restrict the activities of their mate to an unbearable degree.

The "Peeping Tom"

There are certain individuals, popularly called "Peeping Toms," who get a degree of excitement and satisfaction out of peeping into windows and who rarely have any other sort of sex life.

A college student with many friends, both male and female, got a glimpse of some women undressing in a fifth-story window. He repeatedly scaled the side of the building to peek in at them and was finally caught. He showed no other peculiarities.

A young woman in an apartment in the suburbs, whose husband was frequently away, was frightened by seeing a face at her window. She reported this to the police, but the man had gone before they got there. This occurred again and again. The man was never caught by the police. However, the woman put flour on the window sill, got his finger prints, and ultimately he was identified as a strange creature living up the street, who had been an annoyance to the neighborhood for years.

"Jack the Snipper"

There are other individuals who attack women violently, sometimes called "Jack the Snipper" or similar names. They sometimes cut off a piece of clothing or hair, sometimes simply mutilate the women.

A while ago, there was a series of terrific assaults upon women in a certain city. A woman, young or old, while going home late at night, would suddenly be struck from behind by a heavy instrument. At least two women had their skulls fractured and many others escaped with lesser injuries. Finally, a young man, an inmate of a reform school, was caught near the scene of the assaults, who appeared to be the culprit, although he was never convicted. The weapon used was a wrench from a hydrant. The man had an I. Q. of 85 and was discovered to be having sexual relations with a fourteen-year-old girl. He was sent to prison on that ground.

Suicide Pacts

"To be wroth at one loved doth work like madness on the mind." There are certain cases of quarrels between males and females which result in the creation of an extremely morbid state of mind. Sometimes this leads to a suicide pact and mutual suicide, or an attempt. At other times the outcome is murder and suicide. Every case of murder and suicide that I have known (and as far as I can recall, there were six of these) has been the killing of a female by a male, who subsequently killed himself.

A young couple, both of whom seemed to be happily married, became infatuated with each other. The husband of the one and the wife of the other knew of this and had tentatively agreed to divorce so that they could ultimately wed. However, they both disappeared and were found in bed in a cheap lodging house, having taken large doses of poison.

A middle-aged man and his wife had been quarreling, largely due to his drinking. She left him and he repeatedly tried to effect a reconciliation, but she refused to return to him. One day he sought her out, shot her and then killed himself.

Infatuation

In the ordinary course of events, if a love affair meets too many obstacles, it will be discontinued, but there are cases of infatuation so extreme that the concept of morbidity seems justified.

A man of 50, married, with a large family, the proprietor of a large store, became infatuated with a girl in his employ. She was physically of a sensuous makeup and her breasts attracted him particularly. He pursued her with amorous design. She was frightened, left his employ, and her family moved away from the town where they had lived. Despite the fact the man had a wife and family of highly respected standing, he continually pursued the object of his affections and in every way degraded and humiliated himself, though there was no possible chance of a happy ending to the affair. He was examined by many doctors, including leading psychiatrists, and pronounced not insane. He was sent to a state hospital for observation and found not insane. After two or three years the matter quieted down and he once more found satisfaction in carrying on his business.

A woman of 35, happily married, with children, was invited to a neighbor's house, one night, her husband being away. During the course of the evening she did some minor love-making with the neighbor's husband. From this time on, both the man and the woman abandoned every human obligation in the pursuit of sexual gratification with each other. Though they cried and took on when in the presence of their families, they slipped back into the old pattern upon every opportunity. This resulted in impoverishment of the two families and mutual disgrace. She finally left her home, went to work, and got an apartment. When he commenced to cool off somewhat, perhaps through fear of suicide, she gave him a large drink of whiskey with a massive dose of sedative concealed in it. She then took a dose herself. He died, but she lived. She was convicted of manslaughter and sent to prison for a long term.

CONCLUSIONS

From the above it will be seen that gross vagary of conduct in sexual matters rarely indicates insanity. It more often indicates a morbid personality. While the public and the police often think that they are dealing with insanity, this seldom turns out to be the case. We have, then, a large number of persons in

Continued on page 263

*Lung Abscess**

WILHELM SWIENTY, M. D., Medical Director, Central Maine Sanatorium, Fairfield, Maine

It may be somewhat out of place in a symposium of pulmonary tuberculosis to talk about lung abscess. But a lung abscess is also a cavity and has been very frequently mistaken for a tuberculous cavity. Patients have been confined to a Sanatorium under the diagnosis of far advanced pulmonary tuberculosis solely on account of the X-ray evidence of a large cavity which really was a pulmonary abscess.

A lung abscess is best defined as a localized non-tuberculous suppuration of the lung. Two main groups can be observed: First: Abscesses due to bronchial obstruction which may be caused by foreign bodies (either aspirated or as a result of penetrating injury), neoplasm or ulcer of a bronchus or the esophagus, etc. Second: Interstitial abscess, frequently after pneumonia, especially virus pneumonia or caused by septic embolus with infarction. There are other causes, such as: infected pulmonary cysts, massive infections, etc. Bronchiectasis may develop into an abscess due to the loss of ciliated cells of the bronchi. The bacteria adhere to the wall of the alveolar septum and cause necrosis from there.

A pulmonary abscess starts first as a pneumonitis which later on by obstruction of the bronchus, develops into an atelectasis; then follows necrosis and abscess formation with cavity.

The organisms causing lung abscess are usually anaerobic bacteria. A variety of different microorganisms is found: staphylococci, streptococci, spirochetes, but also coli bacillus, Friedländer bacillus, entamoeba histolytica, *B. tularensis*, *Mycobacterium pestis*, *Brucella melitensis* and also all sorts of fungi especially monilia and coccidioides.

In differential diagnosis ruptured interlobar empyema, bronchitis, tumor and tuberculous cavity have to be considered. Careful investigation of the history, examination of the sputum and—last not least, the X-ray will help in establishing the correct diagnosis.

The usual age for the appearance of a lung abscess is about 20 to 40 years. It is much more common in males than in females.

The abscess is generally located in the base of the lung. It may be single and then generally is multi-locular. It may also be multiple and may be found in any part of the lung.

Untreated lung abscess may close as it happens in about 20%. It may spread by bronchogenic spread and result in other cavities in other lobes of the lung. It may become fibrotic and finally develop into bronchiectasis; or it may result in lung gangrene.

The complications of lung abscess are septicemia, septic pericarditis and fatal hemorrhage by erosion of a large vessel. It may rupture into the pleura and then cause a sudden pneumothorax with empyema and a broncho-pleural fistula. One of the more frequent complications is a metastatic brain abscess which is caused by an embolus from thrombophlebitis of the bronchial or intercostal veins and reversed flow of the blood into the azygos and vertebral veins.

The early symptoms of lung abscess are malaise and fatigue, fever, chills, sweats and pleural pain caused from early pleural adhesions. Later fetid sputum is expectorated in large quantities. In it, elastic fibers and the causative microorganisms but no acid fast bacilli are found. Still later follows hemoptysis.

The X-ray and especially bronchography with iodized oil and bronchoscopy are helpful in the exact localization of the abscess. Foreign bodies which obstruct a bronchus and have caused abolition of the cough reflex in that area may also be detected by X-ray. The prognosis of a lung abscess is always grave.

25% to 35% of all lung abscesses heal spontaneously or under conservative treatment. There is a mortality of from 25% to 40% and the remainder have to be treated surgically.

The conservative treatment which is employed in our institution consists of oxygen inhalations, penicillin intramuscularly (120 thousand units a day in divided doses for as long a period of time as the lung abscess has not dis-

* Presented at the meeting of the Kennebec and Somerset County Medical Societies at Fairfield, on April 18, 1946.

appeared in the X-ray picture), postural drainage and small blood transfusions.

Some cases can be successfully treated that way, especially if they are detected early. Sometimes it has been found of benefit to install by trans-thoracic puncture under fluoroscopic control, 80 to 100 thousand units of penicillin directly into the abscess cavity.

Surgical treatment as it is done here, consists of pneumonostomy with wide blunt opening of all the recesses of the cavity and open drainage either by loose packing with iodoform gauze or installation of rubber drains. This operation has generally to be done in two stages, the first stage consisting of resection of two ribs and packing of the rib beds with gauze. This will establish adhesions between the visceral and parietal folds of the pleura within two weeks. After that the abscess can be entered without danger of causing an empyema. The after-care of these cases consist of continuous oxygen inhalation, penicillin intramuscularly (120,000 units a day) and locally into the abscess cavity (80 to 100 thousand units at a time).

Lately I have felt it worth while to try a combined therapy of penicillin and tyrothricin locally in these cases. Every second day between 50 to 100 mgm of tyrothricin is installed and every other day penicillin. The results in the seven cases treated so far have been most encouraging.

Some months after surgical treatment of lung abscess the cavity starts shrinking and leaves a broncho-pleuro-cutaneous fistula. Generally, this fistula closes by granulation. In some cases when a large bronchus is open the fistula has to be closed surgically.

Other forms of treatment are bronchial aspiration, and even pneumothorax, which may be tried in early cases, if the bronchial drainage can be maintained. By this, the abscess cavity, especially if small, can sometimes be closed. In case of severe hemoptysis, phrenemphraxis and pneumothorax or pneumoperitoneum is a life saving operation.

Giant abscess or multiple abscesses in one lobe are best treated by lobectomy or pneumonectomy.

A great deal can be done to avoid a pulmonary abscess. Moore has shown that one out of 2500 tonsillectomies is followed by lung abscess. It was found that either the anesthesia had been too deep and the cough reflex abolished or that blood or tissue was aspirated during or after the operation. He advises in all operations around the mouth, tonsillectomies and tooth extractions, etc., careful evacuation of the trachea and administration of CO₂ at the end of the anesthesia to increase the cough reflex. In cases where foreign bodies, tissue or vomitus (alcoholic coma) possibly could have been aspirated, bronchoscopy and bronchial aspiration are always indicated.

Abstract

*Pneumothorax and Pneumoperitoneum**

By K. J. JESSNER

. . . Jessner, after a concise summary of the primary and reinfection phase of pulmonary tuberculosis, gave a classification of the different stages of tuberculosis as seen on X-rays, and demonstrated illustrative films. Jessner then discussed the indications and contraindications of therapeutic pneumothorax,

pneumoperitoneum respectively. He mentioned among others as important contraindications for pneumothorax-treatment tension-cavities and endobronchial lesions, pleaded for primary Thoracoplasty in appropriate cases, and for bronchoscopic examination of all tuberculous patients.

At the end, Jessner showed the technique of pneumothorax and pneumoperitoneum thereby using Davidson's pneumothorax-apparatus.

* Presented at the meeting of the Kennebec and Somerset County Medical Societies at Fairfield, April 18, 1946.

The President's Page

It is with a great deal of pleasure that I announce that the Eastern Maine General Hospital is to offer a two-day Clinical Course early in December.

This is something which is a very necessary thing to do; and we hope that the majority of the M. D.'s in Maine will make it a part of their program to attend.

There are several reasons why I think it would be very wise to be present at this Course.

I. I know that the staff of the Eastern Maine General Hospital will have very good Clinics, and that all who attend will be able to take home something worthwhile to them.

II. We believe such a meeting will be of direct assistance in bringing a Medical School to Maine.

III. That Bangor is the only place where we can have a Maine Medical School if the project can be brought about at all.

I earnestly urge you to make a large and impressive attendance at this Clinic, and show the people of Maine that we are on our toes and searching for more knowledge whenever the opportunity presents itself.

We feel sure that if this can be made the largest attendance ever on a Clinic here in Maine, it will go a long way to show the voters of Maine that we are actually interested in gaining more knowledge of our chosen profession.

The Maine Medical Association has declared itself in favor of having the Maine Medical School re-opened. Let us get behind this Clinic at Bangor in December.

There will be plenty of advertisement about it, so that it cannot escape your attention.

JOHN O. PIPER, M. D.,
President, Maine Medical Association.

Editorials

W. Mayo Payson Appointed Executive Secretary of the Maine Medical Association

The Council of the Maine Medical Association has appointed W. Mayo Payson, of Portland, Executive Secretary. This position was approved by the Association House of Delegates at its annual meeting at Poland Spring in June, and was established in line with similar positions created by medical associations in other states.

Mr. Payson has held the position of Corporation Counsel of the City of Portland for the past ten years. He was Portland representative to the Maine Legislature for five consecutive two-year terms, and is currently House Chairman of its important Legal Affairs Committee,

a member of the Committee on the Reference of Bills in the existing legislature, and Chairman of a Recess Committee studying State Pensions. He has also served as House Chairman of both the Legislative Research and Code Committees, and has been a member of the Judiciary and Federal Relations Committees. He had been a practicing attorney in Portland for 16 years when appointed by the City Council in July, 1936, to the corporation counsel post.

Mr. Payson, who will assume his duties as Executive Secretary November 1st, will be located at the Maine Medical Association Offices, 142 High Street, Portland.

Fall Clinical Session

The Penobscot County Medical Association and the Staff of the Eastern Maine General Hospital are making extensive plans for an interesting clinical meeting of the Maine Medical Association to be held at Bangor, Sunday and Monday, December 1st and 2nd.

The program as thus far arranged calls for a dinner and get-together meeting Sunday night to which the ladies are invited, and a full day at the Eastern Maine General Hospital on Monday with clinics, demonstrations, and round table discussions. Lunch will be served at the

hospital. The meeting will close with a banquet Monday evening at the Bangor House.

There will be two out-of-state speakers, who will also take part in the clinical discussions.

Special entertainment features are planned for the ladies.

Edward L. Herlihy, M. D., is Chairman and Forrest B. Ames, M. D., Secretary of the Committee on Arrangements.

A complete program will be published in the November issue of the JOURNAL, but make your plans to attend now.

Sexual Crime—Continued from page 259

the community who are held to be legally responsible, but who are obviously utterly irresponsible socially.

What to do with them presents vexing problem. Many states have passed laws by which social delinquents can be committed. These are too recent to form a judgment as to their ultimate success. It seems unquestionably wise to segregate monsters who habitually commit atrocities, but the definition of these crimes and the classification of persons who commit them present very serious administrative problems. For the present it is perhaps wiser to administer existing laws carefully.

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Report of Delegate to the American Medical Association

Herewith I submit my report as a delegate from Maine to the 95th Annual Session of the American Medical Association in San Francisco, July 1-5, 1946.

In-as-much as our State meeting was held late in June, Mrs. Foster and I took off from Portland about noon Friday, June 29th, in an airplane. After changes in Boston and New York, we arrived by Main liner 300 U. A. L. in San Francisco the next morning at 7.00 o'clock. It was a perfect night for flying and converted your delegate and wife to air travel.

The House of Delegates convened at the St. Francis Hotel in the spacious Colonial Rooms, Monday morning with the new speaker, Dr. Ray Fouts, of Omaha, in the Chair. The first order of business was the balloting for the recipient of the Distinguished Service Medal for 1946. Dr. Anton J. Carlson, professor emeritus of physiology at the University of Chicago, was the choice of the delegates.

Next Dr. Fouts read his address as Speaker of the House. He emphasized the importance of the work of the House and the problems of the Speaker in appointing representative Reference Committees, also the desire of the speaker to keep the House as the representative body of the whole membership of the A. M. A. He called attention, also, to the advisability of having a mid-winter meeting of the Delegates. During the sessions it was voted to have a mid-winter meeting of the Delegates. (It is hoped that our State Society may decide to follow this plan.)

Following Dr. Fouts, the President, Dr. Roger I. Lee gave his address. He asked consideration for the Hill-Burton Bill; for a National Research Council in which independent and distinguished students and teachers of medicine should have important portfolios. He spoke about the forces behind the Wagner Bill and urged a watchful attitude. Then he stressed the importance of having young men take an active interest in the medical organizations of the Country, and in powerful language he urged the appointment of Doctors of Medicine to positions of importance in our

National Government; in the high Councils of our Nation; on the United Nations Committees and at the "peace table." He emphasized the fact that the physicians of America had a great deal to contribute to all the conferences which deal with human relations.

Dr. Shoulders, the President-elect, followed Dr. Lee. He spoke, with great intentness, as always, for a unified medical profession. He bespoke support for sound principles of practice, adherence to the code of ethics, an alert guard against the untried, a strong defense against revolutionary measures.

Dr. George Lull, the new Secretary, made his report after Dr. Shoulders' address. Dr. Lull was appointed, after Dr. Olin West's resignation was accepted on April 1, 1946. The Secretary reported the recorded membership on April 1st as 126,835—a gain of 1,533 members in 12 months. There were 68,366 Fellows on April 1st. The Maine figures follow: Number of Physicians in State, 17th Edition A. M. A. Directory, 1,011. Number of Members of State Association, 755. Number of Fellows in State, 1946, 340.

The Report of the Board of Trustees followed. In-as-much as this report covers 75 pages in the Hand Book I will mention a few items only. The Hand Book will be left in the Maine Medical Association office for anyone to read.

The resignation of Dr. Olin West was a major event. On March 15, 1946, after 24 years of devoted service to the American Medical Association, Dr. Olin West tendered his resignation as Secretary and General Manager to take effect April 1st. In his letter of resignation, Dr. West respectfully suggested that Dr. George F. Lull be appointed by the Board of Trustees to serve until the next meeting of the House of Delegates.

The appointment of Dr. Lull was another major event. Dr. Lull retired from the U. S. Army Medical Corps after 33 years of distinguished service. He was born in Pennsylvania, March 10, 1887, received a degree of Doctor of Medicine from Jefferson Medical College in 1909, a certificate of Public Health from Har-

vard Technology School of Public Health in 1921, and a degree of Doctor of Public Health from the University of Pennsylvania in 1922. He was Chief of Personnel Service in the Office of the Surgeon General in Washington from 1940 to 1943 when he became Deputy Surgeon General.

Another change reported was the retirement of Mr. Will C. Braun from Active Business Manager of the *Journal* to Business Manager Emeritus after 54 years of service with the Association.

The proposal of Dr. Lee to have a mid-winter meeting was approved in principle and a recommendation made that a proper amendment to the By-Laws be prepared for consideration at the 1946 meeting of the House of Delegates. As I have reported the amendment was accepted. The House will have its first mid-winter meeting in December, 1946, at Chicago.

Another important matter was the announcement that the Association had obtained the services of Raymond T. Rich and Associates, a nationally known firm of public relations counsel, to make an extensive survey of the Public Relations activities of the A. M. A. The survey is being made and its findings will be made available to the House of Delegates. The Trustees' Report indicates that the Councils and Bureaus of the Association are accomplishing their objectives and that the work in all departments is going favorably.

The Treasurer reported that on January 1st, 1946, the Association had \$4,596,850.47 invested, and had purchased bonds in the amount of \$2,304,955.36. Bonds in amount of \$1,312,537.36 were called during the year leaving invested December, 1946—\$5,589,268.47. Uninvested funds amounted to \$126,824.36; a total of Invested and Uninvested Funds of \$5,716,092.83. A detailed Auditors' report is published in the Hand Book.

The Council on Medical Service and Public Relations reported at length on the institution of a plan for the Prepayment of Medical Care. This was regarded as one of the principal demands of the 1945 meeting of the House of Delegates. It is a long report and your delegate believes that it would be useful and helpful for our State Committee to consult this report found on Pages 161-165 of the Hand Book.

After these reports Resolutions under the call for New Business were read before the House and referred to appropriate Reference Committees.

The evening of the first day the delegates were invited to a dinner given in their honour by the California Medical Society. The dinner was held in the historic Palace Hotel, built originally by W. C. Ralston with money from the great silver mines of Nevada around Virginia City. The gentlemen from California were generous and delightful hosts; good food and fine wines were abundantly provided. The only speech of the evening was delivered by a young California doctor who told us in an expert vocabulary and engaging manner all about the vintage wines. As they say in Lisbon Falls—"A good time was had by all."

The following sessions in the House were given over to supplemental reports and Reference Committee Reports. Not many controversial reports were introduced. The California delegation again introduced a resolution to make some reorganizations in the management and editorial conduct of the *Journal*, and to reorganize the Public Relations Department of the Association. After hearing excerpts from "The Rich Report," presented by the Chairman of the Board of Trustees, they withdrew their resolutions with the statement that they felt that "The Rich Report" would make suggestions which would agree in a measure with their sentiments. A Resolution to review the Army policy of promotions in the Medical Corps was adopted and referred to a committee for report at the next meeting. A Resolution to explore the effect of the Health and Welfare Fund of the Miners' Union on the regular practice of medicine in the mining communities was adopted.

The Installation of the President, and presentation of Medal to the Retiring President, was held Tuesday evening in the War Memorial Opera House Auditorium, at Civic Center. This opening general meeting was largely attended and your delegate had the pleasure of occupying a front row seat next to Dr. Dwight O'Hara, Dean of the Tufts Medical School. The general scientific meetings were held in this beautiful auditorium and the seats were very comfortable. The section meetings were

Continued on page 268

COUNTY SOCIETIES

Androscoggin

President, Romeo A. Beliveau, M. D., Lewiston
Secretary, Wedgwood P. Webber, M. D., Lewiston

Aroostook

President, Clyde I. Swett, M. D., Island Falls
Secretary, Thomas G. Harvey, M. D., Fort Fairfield

Cumberland

President, Elton R. Blaisdell, M. D., Portland
Secretary, Joseph E. Porter, M. D., Portland

Franklin

President, Harry Brinkman, M. D., Farmington
Secretary, James W. Reed, M. D., Farmington

Hancock

President, Raymond E. Weymouth, M. D., Bar Harbor
Secretary, James H. Crowe, M. D., Ellsworth

Kennebec

President, Arch H. Morrell, M. D., Augusta
Secretary, M. Tieche Shelton, M. D., Augusta

Knox

President, Howard L. Apollonio, M. D., Rockland
Secretary, Freeman F. Brown, Jr., M. D., Rockland

Lincoln-Sagadahoc

President, Francis A. Winchenbach, M. D., Bath
Secretary, Virginia C. Hamilton, M. D., Bath

Oxford

President, Harold W. Stanwood, M. D., Rumford
Secretary, J. S. Sturtevant, M. D., Dixfield

Penobscot

President, George B. Weatherbee, M. D.,
Hampden Highlands
Secretary, Forrest B. Ames, M. D., Bangor

Piscataquis

President, Ralph C. Stuart, M. D., Guilford
Secretary, Norman H. Nickerson, M. D., Greenville

Somerset

President, Richard P. Laney, M. D., Skowhegan
Secretary, Maurice E. Lord, M. D., Skowhegan

Waldo

President, Carl H. Stevens, M. D., Belfast
Secretary, R. L. Torrey, M. D., Searsport

Washington

President, John F. Hanson, M. D., Machias
Secretary, John Young, M. D., Jonesport

York

President, Carl H. Richards, M. D., Alfred
Secretary, C. W. Kinghorn, M. D., Kittery

County Society Notes

Hancock

A regular meeting of the Hancock County Medical Society was held at the Hancock House, Ellsworth, Wednesday evening September 11, 1946, at 6.30 P. M.

It was voted that the Chair appoint a committee to procure speakers for future meetings. The following were appointed: Mason Trowbridge, M. D., Chairman; Philip L. Gray, M. D., and Dwight Cameron, M. D.

Forrest B. Ames, M. D., of Bangor, presented an interesting paper on "Problems of Gastro-Intestinal X-Ray," which was followed by a general discussion.

J. H. CROWE, M. D.,
Secretary.

Kennebec

The Kennebec County Medical Association held its September meeting at the Augusta House, Augusta, Maine, on the 19th.

Dr. Stephen W. Sanders, Winthrop, Maine, was elected to membership. Two doctors were accepted for membership by transfer: Dr. Joseph H. Giesen, Waterville, from the Oxford County Society, and Dr. James N. Shippee, North Monmouth, from the Medical Society of New Jersey.

The program for the evening included the following papers:

Malaria—Dr. Dunham Kirkham, Chief Medical Service, Veterans Hospital, Togus, Maine.

Pathology of Malaria—Dr. Benjamin Newman, Chief Section Pathology, Veterans Hospital, Togus, Maine.

M. TIECHE SHELTON, M. D.,
Secretary.

*New Members**Kennebec*

Joseph H. Giesen, M. D., Waterville, Maine. (By transfer from Oxford County Medical Society.)

Stephen W. Sanders, M. D., Winthrop, Maine.

James N. Shippee, M. D., North Monmouth, Maine. (By transfer from the Medical Society of New Jersey.)

For Sale

Physician's large roll top desk made by American Case and Register Company. Designed for complete account file. In perfect condition.

MRS. F. A. BRAGDON,
28 Main Street,
Springvale, Maine.

News and Notices

Adam P. Leighton, M. D., of Portland, was elected Vice President of the American Association of Obstetricians, Gynecologist and Abdominal Surgeons, at its annual meeting at Hot Spring, Virginia, September 6, 1946.

Glidden L. Brooks, M. D., of Lewiston, was appointed Executive Director of the Central Maine General Hospital, as managerial and administrative head, at a meeting of the Executive Committee of the Hospital Directors, September 17, 1946. He will begin his duties October 1st.

William A. Ventimiglia, M. D., has been appointed Chief of the Out-Patient Department, at the Portland Veterans' Administration office, which opened Monday, September 16, 1946.

Dr. Ventimiglia a native of New York City, has been associated with the Veterans' Administration since 1941, and has served as Clinical Director and Chief of Out-Patient Service at the Veterans' Hospital, Togus, Maine.

He attended New York University and obtained his medical degree from Royal University, Bologna, Italy, in 1935. After internship at Meadowbrook Hospital, Hempstead, L. I., he specialized in the study of tuberculosis at the Maryland State Sanatorium.

He became affiliated with the Veterans' Administration as a chest consultant in 1941 and was assigned to the Togus Center. In 1942, Dr. Ventimiglia was commissioned a Captain in the Army Medical Corps, and was called to active duty in March, 1942. Assigned to duty at Togus, he served until May of this year when he was released with the rank of Major.

Testimonial Dinner for Dr. Sleeper, Newly-Appointed Superintendent, Augusta State Hospital

A testimonial dinner was held for Dr. Francis H. Sleeper at the Hotel Sheraton, Boston, on August 22nd, 1946, the occasion being Dr. Sleeper's leaving Massachusetts to go to an important position in Maine. About two hundred friends and admirers of Dr. Sleeper sat down to dinner. Dr. Clarence A. Bonner, Superintendent of the Danvers State Hospital, was master of ceremonies. Tributes to Dr. Sleeper's character and ability came from a group of distinguished colleagues, among them Dr. Roy G. Hoskins, Director of Research, Worcester State Hospital; Dr. A. Warren Stearns, Professor of Sociology at Tufts College and former Dean of Tufts College Medical School; Dr. Abraham Myerson, Director of Research, Boston State Hospital; Dr. Harlan L. Paine, Superintendent, Grafton State Hospital; Dr. Harry C. Solomon, Director, Boston Psychopathic Hospital and Professor of Psychiatry, Harvard Medical School; and Dr. Clifton T. Perkins, Commissioner of Mental Diseases, State of Massachusetts. Dr. William C. Gaebler made a presentation speech.

Running through all of the remarks was a note of regret that Massachusetts is to lose so able a person, yet this was somewhat ameliorated by the knowledge of Maine's great gain.

Coming Meetings

Association of American Physicians and Surgeons.

The Annual Meeting of the Association of American Physicians and Surgeons will be held on Thursday, Friday and Saturday, November 7, 8, 9, 1946, at the Palmer House, in Chicago.

The program will include 10 addresses by nationally known specialists in the fields of medical economics, public relations and legislation.

Physicians do not have to be a member of AAPS in order to attend the program session, but must be members of their respective county medical societies. There is no registration fee for non-members, however, if they desire to attend the Annual Banquet on Friday evening, November 8, the price is \$5.00 per plate. The ladies are invited, too. A special program is being arranged for them.

For complete program write to Frederick B. Exner, M. D., Secretary, Association of American Physicians and Surgeons, 11 South Laselle Street, Chicago 3, Illinois.

American Academy of Allergy.

The American Academy of Allergy will hold its annual convention at Hotel Pennsylvania, New York City, November 25-27 inclusive. All physicians interested in allergic problems are cordially invited to attend the sessions as guests of the Academy without payment of registration fee. The program has been arranged to cover a wide variety of conditions where allergic factors may be important. Papers will be presented dealing with the latest methods of diagnosis and treatment as well as the results of investigation and research. Advance copies of the program may be obtained by writing to the Chairman on Arrangements, Dr. Horace S. Baldwin, 136 East 64th Street, New York City, prior to November 10th.

Tumor Clinics

- | | |
|--------------------|--|
| Bangor: | <i>Eastern Maine General Hospital</i>
Thursday, 11.00 A. M.-12.00 M.
Director, <i>Magnus F. Ridlon, M. D.</i> |
| Lewiston: | <i>Central Maine General Hospital</i>
Tuesday, 10.00 A. M.-12.00 M.
Director, <i>E. C. Higgins, M. D.</i>

<i>St. Mary's General Hospital</i>
Wednesday, 4.00 P. M.
Director, <i>R. A. Beliveau, M. D.</i> |
| Portland: | <i>Maine General Hospital</i>
Thursday, 11.00 A. M.-12.00 M.
Director, <i>Joseph E. Porter, M. D.</i> |
| Waterville: | <i>Sisters Hospital</i>
1st and 3rd Thursdays, 10.00 A. M.
Director, <i>B. O. Goodrich, M. D.</i>

<i>Thayer Hospital</i>
2nd and 4th Thursdays, 10.00 A. M.
Director, <i>A. H. McQuillan, M. D.</i> |

Report of Delegate to the American Medical Association—Continued from page 265

held in buildings around the Civic Center. I am told that they were lively and interesting.

Attendance at the meetings of the House does not allow time for many other meetings. It did allow time to walk around the Exhibit Hall and have a hasty look at the Exhibits. This year they seemed bigger and better than ever. The Scientific Exhibits were arranged carefully in special sections and offered a wealth of information in almost every subject in the book. Rehabilitation and re-education of amputees attracted large crowds. And the hundreds of moving picture demonstrations offered a wide choice.

On the last day I had the pleasure of visiting the Exhibition of the National Physicians' Art Association and found our local medical artist, Dr. John Allen, represented with an oil landscape which had been awarded a medal, making—I think—the 3rd time that Dr. Allen has been awarded a prize.

The election of Officers took place at the last session. Dr. Olin West was unanimously elected President. The only contest was for the position of Speaker of the House. Dr. Lowell S. Goin, from Los Angeles, and Dr. Ray W. Fouts, of Omaha, were the candidates. Dr. Fouts was elected.

Atlantic City will entertain the Association next year. It will be a gala meeting as it will mark the 100th birthday of the Association. At San Francisco, I saw registered Dr. S. Judd Beach from Portland, that's all, not even Frank Welch. I think Dr. Beach was in California to attend meetings of the Ophthalmological Board as well as the A. M. A. It was reported that Dr. and Mrs. Howard Hill, of Waterville, were in attendance but we did not meet. I hope that a large delegation will plan to attend the 100th at Atlantic City.

THOMAS A. FOSTER, M. D.,
Delegate.

HOSPITAL STAFF MEETINGS

Open to the Profession

CITY	HOSPITAL	DATE
Augusta	Augusta General Hospital	1st Wednesday
Bangor	Eastern Maine General	2nd Tuesday
Bath	Bath Memorial Hospital	1st Tuesday
Belfast	Waldo County	2nd Friday
Boothbay Harbor	St. Andrew's Hospital	4th Tuesday
Caribou	Cary Memorial	1st Wednesday
Damariscotta	Miles Memorial	1st Thursday
Lewiston	Central Maine General	1st Monday
	St. Mary's General	2nd Monday
Portland	Maine Eye and Ear Infirmary	1st Wednesday
	Maine General	2nd Friday
	Mercy	3rd Thursday
Presque Isle	Presque Isle General	1st and 3rd Tuesdays
Rockland	Knox County General	1st Monday
Rumford	Rumford Community	4th Wednesday
Sanford	Goodall Memorial	2nd Monday
Waterville	Sisters	2nd Tuesday
	Thayer	Every Thursday

The above list was compiled from a questionnaire sent out by the Maine Hospital Association. Additions or corrections will be made on notification to the Secretary, Maine Hospital Association, Thayer Hospital, Waterville.

Fifth New England Postgraduate Assembly

Sponsored by the Medical Societies of

MAINE, NEW HAMPSHIRE, VERMONT, MASSACHUSETTS, RHODE ISLAND AND CONNECTICUT

HOTEL BRADFORD, BOSTON

OCTOBER 30 and 31

Guest Speakers

DR. JAMES BORDLEY
Johns Hopkins University School of
Medicine
Baltimore, Md.

DR. DONALD CLARK
Monadnock Community Hospital
Peterborough, N. H.

DR. EDWARD J. DONOVAN
Columbia University
College of Physicians & Surgeons
New York, N. Y.

DR. NICHOLSON J. EASTMAN
Johns Hopkins University School of
Medicine
Baltimore, Md.

DR. FRANK GLENN
Cornell University Medical College
New York, N. Y.

DR. HARRY GOLD
Cornell University Medical College
New York, N. Y.

MAJ. GEN. PAUL R. HAWLEY
Chief Medical Director
Veterans' Administration
Washington, D. C.

DR. JOSEPH HAYMAN
Western Reserve University School of
Medicine
Cleveland, Ohio

DR. YALE KNEELAND, JR.
Columbia University
College of Physicians & Surgeons
New York, N. Y.

DR. ALFRED T. LIEBERMAN
Johns Hopkins Hospital
Baltimore, Md.

DR. JOSEPH EARLE MOORE
Johns Hopkins University School of
Medicine
Baltimore, Md.

DR. JOHN PAUL
Yale University School of Medicine
New Haven, Conn.

DR. EUGENE PENDERGRASS
University of Pennsylvania School of
Medicine
Philadelphia, Pa.

DR. LEWIS C. SCHEFFEY
Jefferson Medical College
Philadelphia, Pa.

DR. W. P. WARNER
Dept. of Veterans' Affairs
Ottawa, Ontario, Canada

SIR LIONEL E. H. WHITBY
Regius Professor of Physics
Cambridge, England

DR. IRVING S. WRIGHT
Cornell University Medical College
New York, N. Y.

Program

OCTOBER 30

- 8.45 Registration
- 9.50 Assembly called to order by Dr. Leroy E. Parkins, *Chairman*
- 10.00 The Natural Course of Hypertension
DR. BORDLEY
- 10.30 Time of Election for Abdominal Surgery in Childhood
DR. DONOVAN
- 11.00 Intermission (15 minutes)
- 11.15 Two Hundred Obstetric Consultations in Private Practice: A review of the commoner complications that confront both the general practitioner and the obstetrician (Part I)
DR. EASTMAN
- 11.45 Tropical Diseases
DR. HAYMAN
- 12.15 Luncheon: Hotel Bradford
Medical Aspect of Care of Canadian Veterans
DR. WARNER
- 2.00 The Possible Role of a Community Hospital in Graduate Training in Surgery
DR. GLENN
- 2.30 Tetanus Toxoid
DR. KNEELAND
- 3.00 The Action and Use of the Newer Digitalis Preparations
DR. GOLD
- 3.30 Intermission (15 minutes)
- 3.45 Blood Banks
SIR LIONEL WHITBY
- 4.15 The Treatment of Syphilis
DR. MOORE
- 7.00 Dinner: Ballroom, Hotel Bradford
- 8.00 Veterans' Administration Organization and Future Plans
MAJOR GENERAL HAWLEY

OCTOBER 31

- 9.00 What X-ray Therapy Can Do for Nonmalignant Conditions
DR. PENDERGRASS
- 9.30 Early Recognition of Carcinoma of the Uterus
DR. SCHEFFEY
- 10.00 Two Hundred Obstetric Consultations in Private Practice: A review of the commoner complications that confront both the general practitioner and the obstetrician (Part II)
DR. EASTMAN
- 10.30 Intermission (15 minutes)
- 10.45 Antibiotics
DR. KNEELAND
- 11.15 Gynecology in the Community
DR. SCHEFFEY
- 11.45 A Critical Analysis of Thrombophlebitis
DR. WRIGHT
- 12.15 Luncheon: Hotel Bradford
Influence of Government on Medicine in England
SIR LIONEL WHITBY
- 2.15 The General Practitioner Looks at His Job
DR. CLARK
- 2.45 Hepatitis
DR. PAUL
- 3.15 Intermission (15 minutes)
- 3.30 The Diagnosis and Treatment of the Neurovascular syndrome of the Shoulder Girdle
DR. WRIGHT
- 4.00 Types and Treatment of Deafness
DR. LIEBERMAN

The registration fee is \$5.00, and should be forwarded by mail, if possible. Dinner will be \$2.50, and the luncheons \$1.75 each. Members may invite guests to luncheon and dinner if reservations are made in advance.

Windshield stickers will be provided but it is necessary to observe all parking rules in downtown Boston. There are several parking lots and garages near the Hotel Bradford.

Physicians so desiring may be left on call (HAncock 1400).

Those who have not received an application blank or desire further information should write to the Executive Committee, New England Postgraduate Assembly, 8 Fenway, Boston 15.

Proceedings

NINETY - SECOND ANNUAL SESSION

Maine Medical Association

POLAND SPRING, MAINE

June 23, 24, 25, 1946

FIRST MEETING, HOUSE OF DELEGATES

Continued from the September Issue, Page 248

PRESIDENT LEIGHTON: Mr. Chairman and fellow members of the Maine Medical Association and Members of this House of Delegates. I shall answer the question first, and then go on.

We have 674 members, and at \$35.00 a year, which was the amount that was tentatively considered, the amount would be \$23,590. We think we will reach the 700 mark very shortly, which will take care of the increased expenditures, plus the budget of this year. There is ample money in that, which would take care of the payment of the Executive Secretary, if you should decide to have one.

There is a differential to be considered in the amount of money set up, and it has to do with Fred Carter, my good friend. First of all, it is egotistical and boastful of me to make this statement, but I do it. It was I who contemplated and recommended the appointment of or the election of an Executive Secretary, and I know I am right. I shall try to give you my reasons for it. Please understand there is no inference and there is no innuendo, and there is no implication to be considered in anything I am saying as regards Fred Carter, on my right here. Between him and me, there is absolute unanimity of opinion on this matter. I have the greatest regard for him, as have you all; he has been an excellent Secretary; he is a business-like man and he has attended to his duties in a fine manner. He has edited the JOURNAL, and he has shown you a profit. I want you all to understand that there is nothing underhanded about this at all, and furthermore, I wouldn't be the one to attempt to do anything underhanded towards Fred Carter.

For many years, the Association has gone along as a medical association, and we have done pretty well. But about a decade and a half ago, we began to slip. I would say that up to twelve or fourteen years ago, the set-up was sufficient. We would rely upon the appointment of Committees to look after the business for us during the year. Among other things, we had a Legislative Committee. Some have done good work. I can well remember many men who went down to the Legislature and opposed this and that legislation, and they looked after our rights and privileges, and everything went along nicely. But, about fourteen years or so ago, things began to go wrong. We didn't keep pace with the times, and we didn't realize that adverse factions were making themselves known.

It is unnecessary to repeat what went on. We never made any appearance at the Legislature. No preparation was made for opposition to adverse legislation. You know what happened. That has been dwelt upon so much that it would be sickening to keep repeating it.

But now, Fellows, you are up against something that I don't think you all understand. The osteopaths have a full-time legislative man; they pay him a

mighty good salary. The chiropractors have hired a full-time individual and a clever man, too, to look after their activities, and they are coming right along.

In the next Legislature, which begins in January, medicine is going to be assailed more than ever. . . .

We must be prepared for what is happening, politically, at Augusta. This business, Gentlemen, our medical organization, and I want you all distinctly to understand that it really is more than business; means your self-preservation. Before me, I see my confreres for whom I have the greatest admiration, men who have come down through the years with me, for thirty-six or thirty-seven years, and to them and to me this means little, perhaps. I realize that it will not be long before we are forgotten; after the obituaries in the JOURNAL, we will be just one of those who was here once upon a time. But, we have a good crowd of men coming along to take our places, and if we don't make preparations to safeguard the practice of medicine for them, God help us! If we are going to be stingy and short-sighted as we have been during the past two or three decades, then we should feel sorry for ourselves.

The time has come, now, when we have got to realize that it costs something for self-preservation, and we have got to fight. We need what the other medical societies that are up-and-coming have, and that is an Executive Secretary. Look at what Rhode Island has. Look at Connecticut, Michigan, Minnesota, California, Nevada, and I can name you the accomplishments of any one of them. They have an Executive Secretary who has saved the day for them.

We need some one who will attend our meetings and the meetings of the component societies, and who will keep us abreast of the times, some one who will let us know what other men are doing in the practice of medicine throughout the United States.

We need some one to look after our JOURNAL. We want somebody to run the JOURNAL, somebody to head up a pre-payment plan of insurance. We want somebody who is going to be the go-between with the Maine Medical Association, the American Medical Association and the other medical associations in the United States and the State of Maine.

For once, please give this your consideration, and let us think of this as a matter of real business for the first time in our lives and in our history. Let us have a man on the job 365 days in the year and 24 hours a day, knowing what is going on. He could be trained to do what we want him to do. He could be a layman, a lawyer, or even a doctor. They have a doctor in Connecticut and he's a corker; he's a politician. That's the type of man we need to go down to Augusta.

This is the last appeal that I am going to make. Do as you like, but for God's sake, let us have a little bit of thought. Let us be a little bit selfish. Let us have a little bit of thought about those who are to follow us.

Through the medium of this Executive Secretary, which is a full-time proposition, we can maintain that which we have and save losing much that will come our way a little later on.

At this time, I want to introduce to you a man for whom I have the greatest regard; he is going to be our guest speaker later in our program. Between him and me, there has been a good deal of talk about the necessity of having an Executive Secretary; he knows more about this than you or I know, and I think it would be nice if we would have him explain the necessity for this Executive Secretary, the necessity for real business in a medical association.

Dr. Loos, will you tell these gentlemen what you told me as to what you do, and why we need an Executive Secretary?

DR. H. CLIFFORD LOOS of the ROSS-LOOS MEDICAL GROUP CLINIC, Los Angeles, California: Mr. Speaker, Mr. President. What I have to say is very brief. We have to be frightened into action, and if there is any scare in us at all, we ought to be frightened.

You represent big business in the State of Maine. Consider the total collections you all get from your patients, collectively; it is big business, amounting to a big sum of money, and you can't run big business like a peanut stand. We have had the same thing in California, raised our dues last year to \$100. We have 8,000 members. If we hadn't done that, we would have had compulsory health insurance in the State. We had a good Republican Governor in the State whom we all backed, who decided that compulsory health insurance was *the* thing, and he decided it was a "must." We were a little bit late in getting started, but we won by two votes in the Assembly; we came that near to having compulsory insurance in California!

When we first raised the dues to \$100, there was a gripe all over the state. None of the members resigned, but they griped. After they had had a good scare, we did it again; they are now all satisfied and they are not griping about it at the present time. When you consider the dues that you are contemplating, \$35.00, what does that amount mean to any practitioner in the State of Maine? He will while that away easily in a month's time. He is in big business.

You should have an Executive Secretary, a man who can attend to these things full-time. Doctors are too busy; whether we have the talent to do it or not, we are too busy to attend to business of this type. You must have an Executive Secretary, preferably a layman, a good man, who can get around, and who makes a good appearance, a gentleman, a man who understands your problems, and it will be the best money you have ever spent, if you will do it. Other states have it.

In California we have some large county medical associations that are much bigger than the whole State of Maine in numbers, and they have Executive Secretaries. We have an Advisory Committee, all laymen. The Executive Secretary of the California Medical Association and the attorney are laymen. They advise us what to do.

You know, we are very narrow in our profession. We are not advertisers or ballyhoo people. These people have done wonderful work for us, and the money it costs us is the best investment that we have ever made.

I want to tell you that you had better protect your business. When you put up your \$35.00, that is going to be nickels-to-dollars to what the osteopaths and the chiropractors will do. You will have to fight them, and dollars is the only way to do it. It is necessary to protect what you have. You are going to lose it, if you don't.

We have had some narrow escapes out west. They won't forget you. Wait until you have to fight Sidney Hillman! Organization is the thing these days. You are in a dangerous spot if you do not do something about it.

I urge you to raise your dues to that amount. It is the only way you can get money. You will be caught with your pants down, if you don't! Thank you very much.

CHAIRMAN PIPER: You have voted to accept the report of the Chairman of the Council. Of course, this matter of raising the dues will have to be voted upon and will have to come before the Association later.

With your permission, I should like to refer that to the Reference Committee for them to talk it over and bring in a recommendation to us tomorrow.

DR. JAMESON: I find that I am on the Reference Committee, with five other gentlemen, and I fail to see what we can add in the way of explanation or clarification of the problem. I wonder what good purpose will be served by the Reference Committee taking it up?

CHAIRMAN PIPER: The idea I had in mind about the Reference Committee is that instead of having so much extemporaneous debate in the meetings here, this matter could be talked over with your Committee, and then you could report to this House of Delegates tomorrow what the consensus of opinion seems to be in your respective Councilor Districts. Of course, that is not necessary, if you do not want to do it. But, it did seem to me that this might facilitate the handling of a problem as big as this.

DR. THOMAS A. FOSTER of Portland: May I have the privilege of the floor a moment? Perhaps I can help Dr. Jameson. It is customary, at the American Medical Association meetings, to have a meeting of the Reference Committee open to any members of the Association who would like to appear before the Reference Committee, and that Committee could select the room and publish the time of their meeting, then all the people who wanted to be heard on the question could meet with the Reference Committee and debate the question, and the Reference Committee could then bring in the recommendation. Was that what you had in mind?

CHAIRMAN PIPER: That is what I had in mind, yes.

DR. ALBERT W. PLUMMER of Lisbon Falls: This has been somewhat discussed in the County meetings. I agree with the Chair that a matter of this importance, and several matters of importance in the report of the Council, can hardly be acted upon at this time, with a large number of delegates to debate the question, and also prior, perhaps, to having an opportunity to talk it over more among the various members.

It occurs to me, also, that while, of course, only delegates or alternates may vote, I think it has been customary and it is rather expected that any member of the Association who so desired might have the floor in order to express his opinion.

I agree with my friend, Dr. Jameson, that the Reference Committee knows no more about the matter than the Councilor, and any recommendation that it would make would still have to be discussed.

It seems to me that it is obvious that we should table the matter until the next meeting tomorrow afternoon. I think, too, that these matters should be taken up one at a time, rather than being endorsed with a blanket endorsement. I should think that tabling would cover the matter sufficiently and give everybody an opportunity to talk the matter over, meanwhile.

DR. CLYDE I. SWETT of Island Falls: If I understand the motion which has been made and seconded,

it is merely that we accept the report of the Chairman of the Council as given. It is up to the House of Delegates from that point on to take up the recommendations and to decide as they wish. But the question before us at the present time is merely to accept the report of the Council as given. I, for one, feel that I am ready for the question.

CHAIRMAN PIPER: It has been moved and seconded to accept the report of the Council, as given by its Chairman. All those who are in favor of the motion will please raise their hands? Those opposed?

I declare the report unanimously accepted.

Now, you have heard Dr. Leighton explain a little about increasing the dues to \$25.00, and the reason for that. As I have said, I should like, with your permission, to refer that matter to the Reference Committee. And I might say to Dr. Plummer that that does not prevent anybody from speaking on these matters tomorrow. I want to give the delegate a chance to think this matter over and talk it over, and then be ready to discuss it and vote on it tomorrow.

Now, there are other matters in that report that need our attention. (Recommendations published in September issue.)

I think that those things should be thought of, and again, with your permission, I should like to refer them to the Reference Committee, who merely act as a body to hear the different opinions from the men in the Association; they can convey that information to this House of Delegates tomorrow afternoon.

DR. SMITH: I move that these matters be referred to the Reference Committee. I think it would save a lot of time. These men can get in touch with a great many men here, as they go about the hotel. I think it is a sensible thing to do and it would save a lot of talking about matters here.

CHAIRMAN PIPER: You have heard the motion to refer these matters to the Reference Committee. Is that motion seconded?

This motion was duly seconded and was carried.

DR. SWETT: Do you have any information as to the time and place of the meeting of the Reference Committee?

CHAIRMAN PIPER: That ought to be posted on the Bulletin Board. They can designate a room where they will meet. Then I think you should all give your ideas freely.

DR. CHARLES W. KINGHORN of Kittery: We came here instructed to vote for all of these things; we don't need twenty-four or forty-eight hours to make up our minds.

CHAIRMAN PIPER: The next thing on the agenda is the report from the Councilors whose reports have not been published in the JOURNAL of the Association. I am going to call upon Dr. Waldron Morse, Councilor of the First District, for his report. Is Dr. Morse here? He is not here, so that report cannot be made.

The next reports are of Standing Committees not published in the Association JOURNAL. Dr. Oscar Johnson, will you report for the Social Hygiene Committee?

DR. OSCAR R. JOHNSON of Portland: Mr. Chairman and Delegates of the Maine Medical Association. I am rather sorry that I am not giving a report this year. I am rather displeased in some ways about certain things. I should like to have the privilege a little later on of taking up something again with the House of Delegates.

CHAIRMAN PIPER: I think, then, that we will postpone that and let you report tomorrow.

DR. JOHNSON: I should like to take up something under New Business.

CHAIRMAN PIPER: You have no report, then?

DR. JOHNSON: No.

CHAIRMAN PIPER: Reports of special committees not published in the June issue of the JOURNAL. The

Committee on Maternal and Child Welfare, Albert M. Fellows of Bangor, Chairman. Dr. Carter has a letter from Dr. Fellows which he is going to read to us.

SECRETARY CARTER: I received this letter from Dr. Fellows:

"The Committee on Maternal and Child Welfare was unable to function this year because of the pressure of business of all of its members. Therefore, there is no report to offer."

CHAIRMAN PIPER: Do I hear a motion to accept that report?

DR. VICKERS: I move that we accept the report.

This motion was duly seconded and was carried.

CHAIRMAN PIPER: We shall now hear from the Amy W. Pinkham Fund Committee, by Dr. Foster.

DR. THOMAS FOSTER: Mr. Chairman, I beg leave to submit a full report of the Fund at the next meeting of the House of Delegates.

CHAIRMAN PIPER: Next is the report of delegates to the New England Medical Societies. Dr. Foster, who attended the Massachusetts meeting, will report to us first.

DR. THOMAS FOSTER: Mr. Chairman, it was a pleasure, as your delegate, to serve at the 165th meeting of the Massachusetts Medical Society, held at the Statler Hotel in Boston, May 21, 22 and 23. The program consisted of general sessions and the annual meeting at eleven o'clock, Wednesday morning, May 22nd, which was a business meeting. The annual meeting had a report from the Secretary, address by the President, and the only business to come before the members was the matter of resolutions and motions presented by the Council. The Council is the large, representative body, which holds numerous meetings during the year and conducts the business of the Society, thus leaving the Annual Meeting with very few matters for decision.

Following the Annual Meeting came the Annual Oration, given this year by Dr. Frank H. Lahey, on the subject of "Gastric Surgery." He spoke in his usual convincing manner, and gave a most interesting address. At four o'clock on the same day, the Shattuck Lecture was given by Colonel John B. Yumans of the Army of the United States, Chief of the Nutrition Branch of the Office of the Surgeon-General and Professor of Medicine. He spoke on "Nutrition and the War."

Dr. Reginald Fitz presided at the Annual Dinner, Wednesday evening. The speakers were Dr. Elmer Bagnall, retiring President, and Roger I. Lee, President of the American Medical Association.

If the House will permit a personal touch, I had the pleasure of reading a report at the Annual Meeting which was written by a delegate to the Massachusetts Medical Society in 1871. It happened to be Dr. T. A. Foster, of Portland, my grandfather. He speaks at some length about the meeting. This part I read because Dr. Fitz was President of the Massachusetts Medical Society this year. So with your permission, I shall read an extract from this report:

"At 12 noon, a meeting was holden in Lowell Institute, at which several essays were read by young men who, from the character of their papers, I judge will make their mark in the profession of medicine in that city. One of them, Dr. Fitz, I think they call him, I was told had recently returned from Germany, where he had been spending sometime under the instruction of Professor Virchow. His essay was on Tuberculosis, and was an able declaration of Virchow's method, and theory."

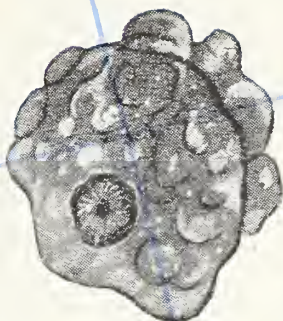
That was the present Dr. Fitz's father.

In conclusion, the old gentleman writes as follows:

"As a whole, I think the Massachusetts Medical Society, having among its numbers many of the ablest physicians and surgeons of the country, is very far

Continued on page 274

practically everywhere



...including the temperate zones, an unexpectedly high percentage of carriers of *Endamoeba histolytica* is to be found.

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Advertisement



From where I sit by Joe Marsh

Bert Childers and the Melon Patch

Bert Childers put an ad in the Clarion the other day. Here's what it said:

"Planted more melons than I can eat this year. Stop by and pick as many as you want. All free."

As you can guess, plenty of folks sent their kids over and plenty of the parents came too. Stripped Bert's melon patch in no time. And as they went away, Bert treated the kids to lemonade, and offered the grownups a glass of ice-cold sparkling beer.

Naturally it puzzled some folks . . . but Bert explains: "It gives me a kick to share things when I can afford to—whether it's the melons, or the lemonade, or beer. I guess I just like to indulge my whims."

From where I sit, if we had more "self-indulgent" people like Bert—who believe in share and share alike, live and let live, this tired world would be a whole lot better off!

Joe Marsh

Proceedings, House of Delegates

Continued from page 272

behind our own Association, in point of work. As good as the papers were, the subjects upon which they were written were by no means exhausted by their presentation and still there was no discussion of any interest upon any of them."

CHAIRMAN PIPER: You have heard Dr. Foster's report. What is your pleasure?

A MEMBER: I move that the report of Dr. Foster be accepted.

This motion was duly seconded and was carried.

CHAIRMAN PIPER: Dr. Kinghorn is our delegate to the New Hampshire Medical Society.

DR. KINGHORN: I don't know how many times I have been to the New Hampshire meeting as your delegate. I feel perfectly at home there.

They had their meeting, as usual, the middle of May, at the Carpenter Hotel in Manchester, and this year the meeting was only one day because they could not get hotel accommodations for a two-day meeting. They had no round-table discussions as we have in the morning. They have their House of Delegates' meetings the evening before their regular meeting, and also on the following morning before their regular meeting, and also on the following morning before the scientific session begins.

There were the usual papers. The day was fairly warm and the attendance was pretty good. I stayed a few minutes and then ducked out the back door where it was cooler for a while. In the evening, I attended the banquet, and they had the human speed artist as their guest speaker, Dr. Fishbein. When he wants to give anything private, he always says: "You don't need to worry about the stenographer; she can't get it anyway. There will be no publicity."

Nobody could ever remember what he says, because he talks so fast that you can only get a word here and there. But his talk was interesting, as usual, regardless of his speed. He certainly can put it over.

DR. THOMAS FOSTER: May I make a supplementary report on the Massachusetts meeting? I think the Annual Meeting is very impressive, and the members are very little bothered with detailed discussions and matters of business. They have a Council there, because with their large body of physicians they could not transact their business otherwise. The Council has stated meetings during the year. It is like our House of Delegates. They dispatch the business during the year, and bring very little business into the Annual Meeting.

Now, it has occurred to me, and it did occur to me when I held office in the Association, that it would be an excellent thing if the House of Delegates of this Association would have special meetings during the year, and have sufficient time to discuss thoroughly and list carefully any proposals that come before us.

Apparently, as time goes on, the House is going to be called upon to discuss many important questions which need careful consideration. It always seems to me that there is too little time allowed, in the pressure of the Annual Meeting and the scientific program, to give the House of Delegates a fair chance to discuss the important questions.

It seems to me that if it were necessary, we could change the by-laws, in order to have special meetings once or twice during the year. It is working out well in other places.

CHAIRMAN PIPER: Thank you very much. May we have a motion for the acceptance of Dr. Kinghorn's report?

A MEMBER: I move the acceptance of Dr. Kinghorn's report.

This motion was duly seconded and was carried.

(To be continued in the November issue.)



The Journal of the Maine Medical Association

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No. 11

*One Hundred Cases of Esophageal Diseases**

GEORGE O. CUMMINGS, M. D., Portland, Maine

The esophagus is a silent organ and gives rise to practically only one symptom, dysphagia.

It is realized that one hundred cases of esophageal disease is no vast number, that each condition described deserves an entire article in itself, and that all of the less frequently diagnosed diseases will not occur in such a group, yet such group of cases is easy to comprehend and will show the relative frequency with which various conditions are met, that abnormalities of the swallowing function demand examination by fluoroscopy and esophagoscopy, that much may be done to cure or relieve the many types of esophageal disease including cancer, and that all patients suffering from dysphagia have not malignant disease.

Bulbar paralysis or Glosso-labio-pharyngeal paralysis,	6
A. Arteriosclerotic,	4
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Cancer of esophagus,	25
A. At cricopharyngeus,	7
B. Above aortic knob,	3
C. Mid-esophagus,	5
D. Lower third,	6
E. At hiatus,	4

100

BULBAR PARALYSIS OR GLOSSO-LABIO-PHARYNGEAL PARALYSIS

Bulbar paralysis or glosso-labio-pharyngeal paralysis may arise from any type lesion in the bulbar region. It should be distinguished from myasthenia-gravis.

* Presented at the 92nd Annual Session of the Maine Medical Association, at Poland Spring, June 25, 1946.

There were six patients in this group. Four cases were due to arterial changes, two were women and two were men. Their ages were 67, 73, 74 and 75. The sudden onset of a bulbar paralysis was the first symptom of infantile paralysis in two patients aged 15 and 32.

Mr. W. W., aged 75, had noticed for the last three months an increasing difficulty in getting food off the back of his tongue to start the act of swallowing. Saliva had gathered in his mouth and, at times, overflowed into his larynx choking him. Examination showed a rather feeble old gentleman with palpable arteries, tortuous retinal vessels and a blood pressure of 160/80. His palatal reflexes were weak, and he had some difficulty in protruding his tongue. Fluoroscopic studies of his swallowing function showed that a bolus of heavy barium was juggled about on the back of his tongue. Although he had no other obvious muscular weakness, 5 mgm. of prostigmin was administered to see if he would swallow more easily. Since he did not, myasthenia-gravis could be ruled out. As time went on his difficulty in swallowing increased and weakness of his lingual muscles interfered with pronunciation. He was fed through a Levine tube. Death occurred from pneumonia, doubtless due to aspiration.

Mrs. J. L., aged 36, entered the Maine General Hospital, July 28, 1945, and died August 10, 1945. On the day of admission she woke up unable to swallow. The overflow of saliva into the larynx caused coughing and choking, and embarrassed her respiration. She fell when she tried to walk. She had previously been in perfect health and was sent to the hospital with the question of a possible foreign body in her esophagus. She had some difficulty in protruding her tongue and sitting up in bed. Mirror examination showed saliva in her piriform sinuses. She was seen with Dr. Hawkes of the medical service, and we were sufficiently uncertain of a diagnosis that an esophagoscopy was done. It was negative. The following day her palate was definitely paralyzed and the spinal fluid was consistent with polio-myelitis. She subsequently lost the use of both arms and one leg while her respiratory muscles functioned well. She was treated with penicillin.

A Levine tube was introduced through one side of her nose to mid-esophagus for feeding and a catheter through the other nostril into her naso-pharynx to aspirate secretion so it would not overflow into her larynx.

PLUMMER-VINSON SYNDROME

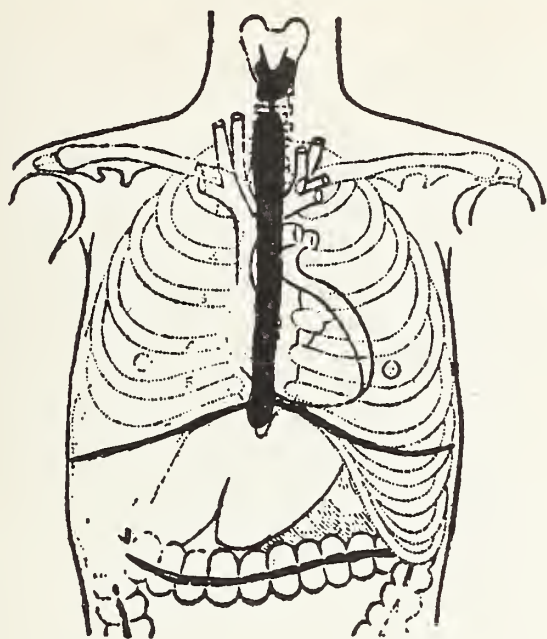
The Plummer-Vinson syndrome is a functional dysphagia associated with low hemoglobin, glossitis, lesions at the corners of the mouth, avitaminosis, and occasionally splenomegaly. It may be an additional factor in dysphagia in other esophageal diseases.

There were four patients in this group, three of whom were women. Their ages were 85, 85, 65, and 46.

Mrs. K., aged 46, had a lye burn in her esophagus when a child of eight in England. As an adult she had swallowed well until the last four months when she had had increasing dysphagia. Her tongue was red and glossy, there were lesions at the corners of her mouth and her hemoglobin was 58%. X-ray study showed a narrowing in the mid-esophagus which was found on esophagoscopy to be a simple ring like stricture that admitted a No. 24 French bougie. In the course of the next two weeks as she was being given iron and large doses of vitamin B complex, her swallowing function returned to normal and she began to regain her lost weight. Her stricture was not a factor in her dysphagia.

WEBS IN THE UPPER ESOPHAGUS

The upper pinch cock of the esophagus is formed by the cricopharyngeus muscle which closes this organ tightly against the posterior surface of the cricoid cartilage. Normally this relaxes to permit a bolus of food to pass. If, however, in an illness there is an esophagitis and diet is limited to liquids, the margins of this opening may begin to stick together and form adhesions. This condition may be associated with an avitaminosis and these patients often have a low hemoglobin. Mosher¹ states that webs may be associated with lipping of the anterior surfaces of the bodies of the cervical vertebrae.



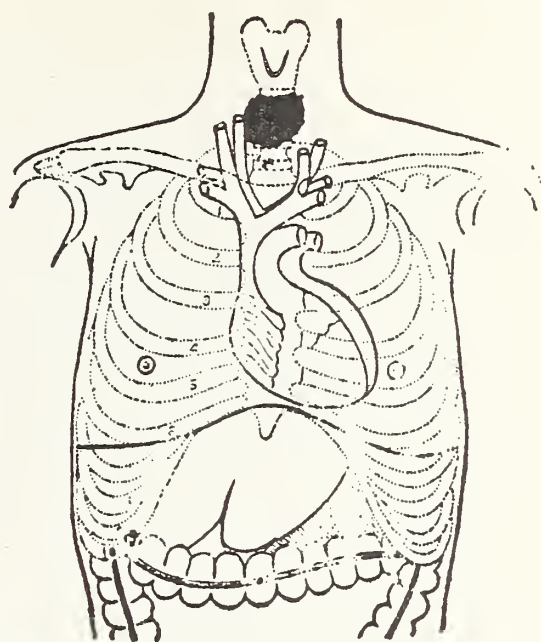
1. Web in Esophagus: They are difficult to visualize at X-ray examination. They may be suspected in women who have dysphagia. They are relieved by dilatation at esophagoscopy.

There were ten patients in this group, all women, ages 32, 40, 41, 42, 46, 46, 60, 65, 65, and 70.

Mrs. C. G., aged 40, stated that it had taken her a long time to swallow since the birth of a child five years before. In the hospital it took her an hour to eat a small serving of mackerel, potatoes and peas. Occasionally food lodged. This was relieved by pressure at her sternal notch. Her general physical examination was negative except a red count of 3,500,000 and a hemoglobin of 70%. Fluoroscopic study of her swallowing function suggested a narrowing at her cricopharyngeus. She was esophagoscoped and a thin white web was observed extending from the right side to the mid line. At first bougies and then the esophagoscope were insinuated by this area and the web was broken. Four months later she wrote that she was swallowing well and had gained twenty-five pounds in weight.

DIVERTICULA OF ESOPHAGUS

There are two types of esophageal diverticula, pulsion and traction. Pulsion diverticula occur as a herniation through an undefended area just above the cricopharyngeus muscle. The sac usually pouches out to the left. The condition is more frequently found after age fifty and is said to be more common in men.



2. Pulsion Diverticulum: They arise above the crico-pharyngeus. They are relieved by surgery.

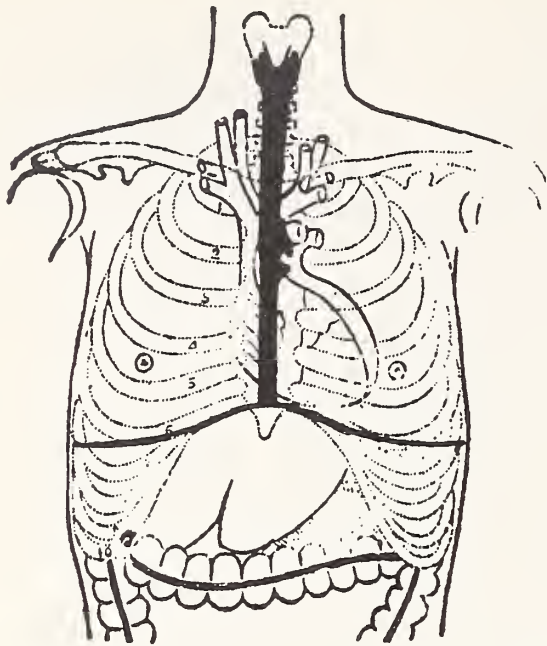
There were seven patients in this series, four women and three men. Their ages were 50, 57, 66, 67, 68, 70 and 77. Four were operated on. The following is typical history:

W. E., aged 50, had noticed some difficulty in swallowing for a number of years but thought little of it until this last year when he noticed that occasionally he regurgitated unchanged food or a tablet taken some hours before. He relieved a feeling of fullness in his neck by making pressure toward his larynx on the left side. This was accompanied by a gurgling and regurgitation of a small amount of food. He was successfully operated on by Dr. James Parker and has done well.

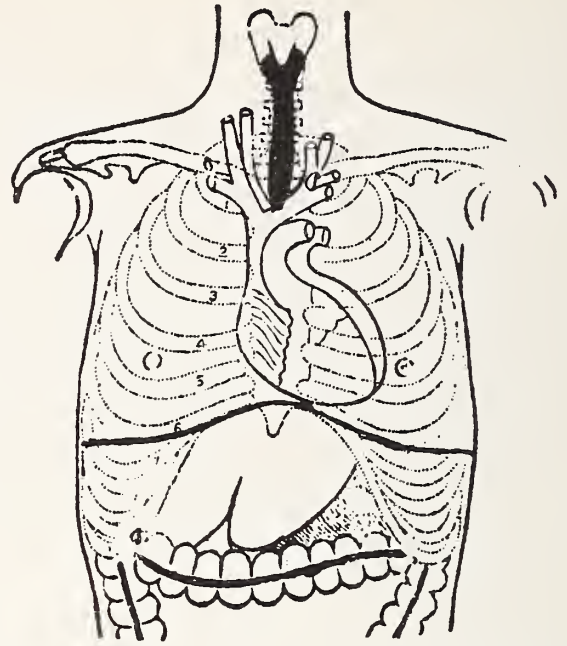
Traction diverticula are usually located in the mid-third of the esophagus. They rarely give rise to symptoms and probably represent the pulling out of the wall of this organ by a tubercular mediastinal gland. They are accidentally discovered on routine fluoroscopy with swallowing barium done for the examination of the gastro-intestinal tract. Occasionally pouches of unexplained origin spring from the lower esophagus.

CONGENITAL ATRESIA OF THE ESOPHAGUS

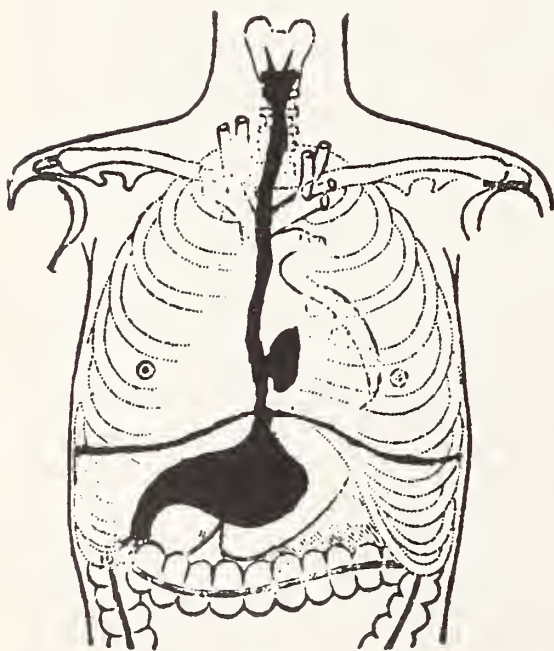
Congenital atresia of the esophagus formerly always resulted in death. Excess saliva, some cyanosis, vomiting and choking immediately after feeding in a new born infant are sug-



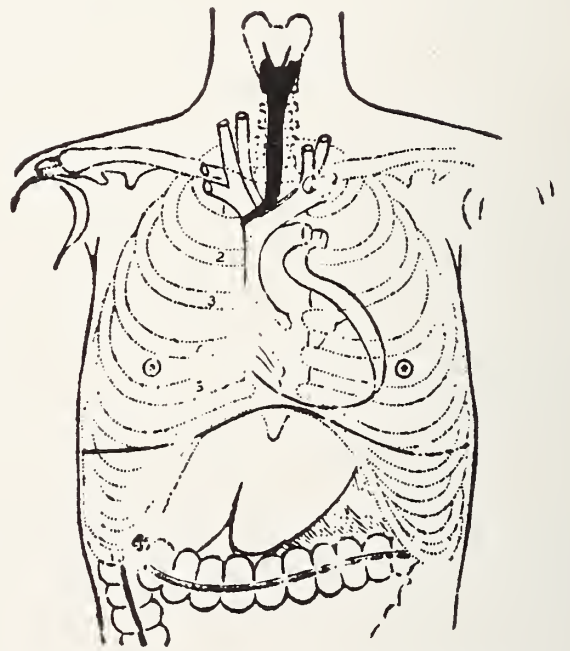
3. Traction Diverticulum: They are pulled out by mediastinal glands, are accidentally discovered at X-ray, and need no treatment.



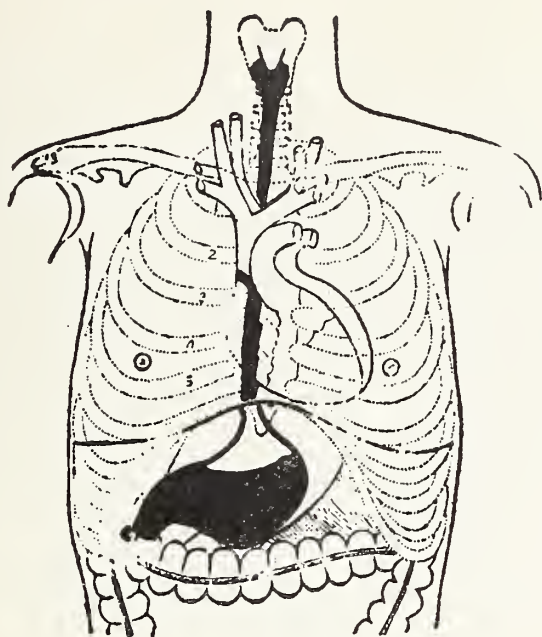
5. A. Congenital Atresia of the Esophagus: The esophagus stops at the level of the bifurcation of the trachea. There is no air in the stomach. Treatment surgical.



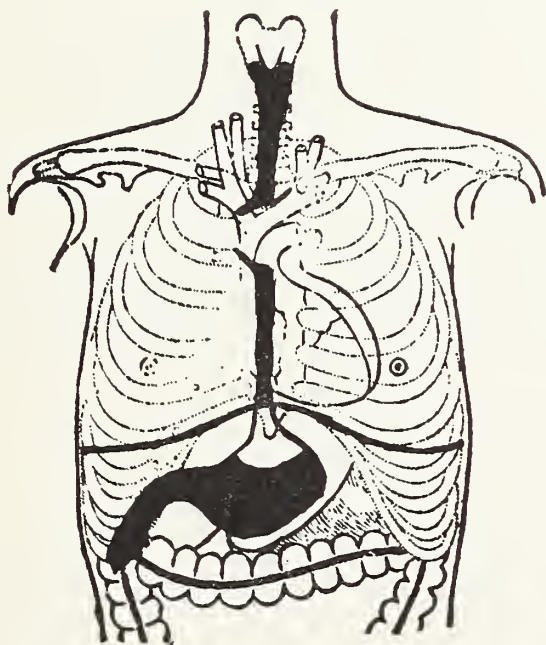
4. Saculation of Lower Esophagus: This is rarely found. The cause is unknown. This patient felt so much better after taking barium for fluoroscopy he left without being esophagoscoped.



6. B. Congenital Atresia of the Esophagus: The blind end of the esophagus communicates with the trachea. There is no air in the stomach. The treatment is surgical.



7.C. Congenital Atresia of the Esophagus: The upper end of the esophagus ends in blind pouch. The lower end communicates with the trachea. There is air in the stomach. Treatment, surgical.



8.D. Congenital Atresia of the Esophagus: The upper and lower ends communicate with the trachea. There is air in the stomach. The treatment is surgical.

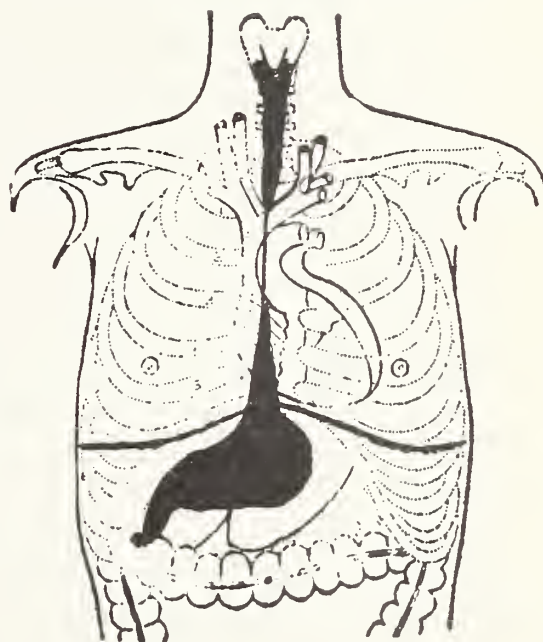
gestive. The diagnosis can be confirmed by passing a small catheter through the nose into the esophageal pouch under fluoroscopic guidance. This is obviously safer than administering a barium mixture. There are four types of defects: first, the upper and lower segments are separated by an area of atresia. Second, the upper segment communicates with the trachea. In neither of these types will air be found in the stomach and bowel. Third, the

upper segment ends in a blind pouch while the lower portion extends from the trachea to the stomach. Fourth, both segments communicate with the trachea. In the last two types the stomach is filled with air.

Ladd,² Lanman³ and Leven⁴ and others have devised surgical operations that offer hope to some of these infants.

The two patients in this series died without operation.

CONGENITAL SHORT ESOPHAGUS



9. Congenital Short Esophagus: The esophagus narrows at the bifurcation of the trachea and a portion of the stomach is pulled up through the diaphragm to meet it. It may be suspected in children with dysphagia. It is relieved by dilatation via the esophagoscope.

In this condition the esophagus narrows in the vicinity of the bifurcation of the trachea where it is joined by a portion of the stomach, which is drawn up through the diaphragm. This is the same location at which congenital atresia occurs. Dysphagia, lodgement of foreign bodies, and accidental discoveries at X-ray studies of the gastro-intestinal tract bring this condition to light.

There were seven patients in this group. Their ages when the diagnosis was made were 2, 4, 9, 11, 70, 76, 85. Five were females. In four instances the diagnosis was made subsequent to the removal of a foreign body. In two, the Plummer-Vinson syndrome was a factor. One had a peptic ulcer.

M. O., aged 11, was extremely thin for her age. She had been brought up on a diet of liquids and semi-solids. She had to leave the table a number of times during a meal to dislodge food. She was dilated fourteen times via the esophagoscope during the next few years. Later, she entered training as a nurse, when she had a little difficulty swallowing.

N. W., aged 70, always had to be careful to chew her food thoroughly. She did well until some four years before when her hemoglobin became low and she suffered from an avitaminosis. X-ray study and esophagoscopy showed a concentric narrowing, opposite the fifth dorsal vertebra and a portion of her stomach above the diaphragm. Improvement in swallowing followed administration of liver, iron, and vitamins.

STRICTURE OF THE ESOPHAGUS

Stricture of the esophagus is caused by trauma. Six cases occurred in this series, three were due to lye, one to scalding hot water, one to medication and one to disease.

No. 1. C. B., aged 72, mistook lye for vinegar which he intended to take for his stomach. He lived three and one-half months and was dilated nine times over an esophagoscope. Perhaps he would have done better with more infusions and with an indwelling Levine tube for long period. He gradually faded away.

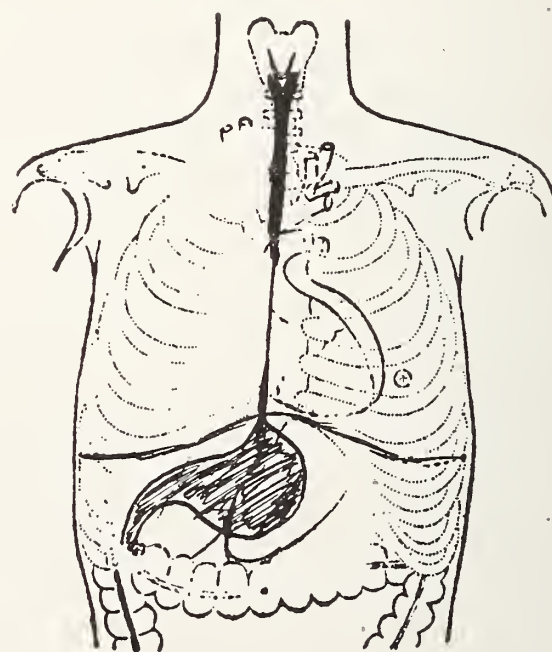
No. 2. H. S., aged 4, drank some lye, her mother was making soap. It was thought that she could be best treated with retrograde bougienage. A gastrostomy was done. This apparently upset her enough so that she died some six days later. I believe a simpler type of gastrostomy would have been better.

No. 3. Age 23, drank lye with suicidal intent. He was seen at the Maine General Hospital a week later, a mass of greenish slough overhung the larynx. This was grasped and a cast of the entire esophagus as large round as one's thumb was removed. He then swallowed well for a few days. Demulcent drinks containing small amounts of sulfanilimide were given and he was dilated at esophagoscopies twice a week. He disliked this so a Levine tube

was introduced through his nose to the stomach, but this caused nausea, sleeplessness and cough due to overflow into his larynx. A gastrostomy was done and retrograde bougienage commenced. It was impossible to keep the abdominal content from running out on the surface of his abdomen and the edges of the wound began to digest. The gastrostomy was closed and bougienage via the esophagoscope commenced. Operation consisting of bringing the upper end of the esophagus to the surface was considered. Months later he died in another community from an acute edema of the larynx, secondary to a laryngeal perichondritis, due to repeated esophagoscopies. I believe that gastrostomy and retrograde bougienage was the best type of treatment.

No. 4. Mrs. M. M., aged 18, had dysphagia since diphtheria as a child. Her esophagus at the entrance to the chest admitted a No. 20 French. There was dense scar tissue. She had a Plummer-Vinson syndrome and improved when given iron, liver and vitamin B complex in large doses.

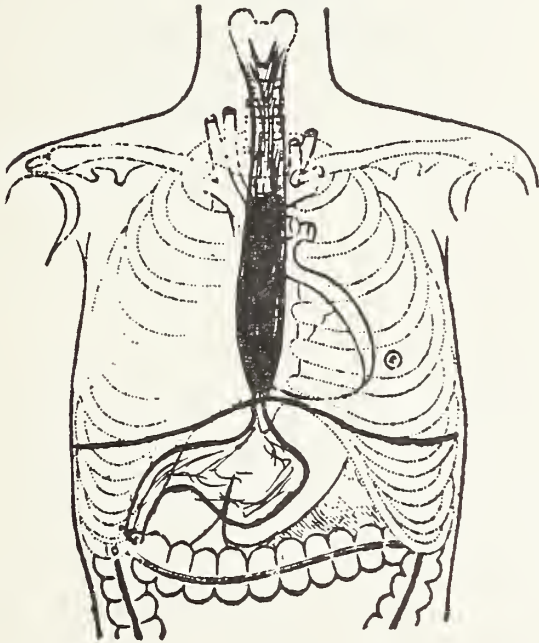
No. 5. J. M., aged 62, had dysphagia since swallowing a gargle five years before (glycerite of phenol?). His stricture was at the entrance to the chest. It was dilated up to a No. 24 French at three esophagoscopies. He did well.



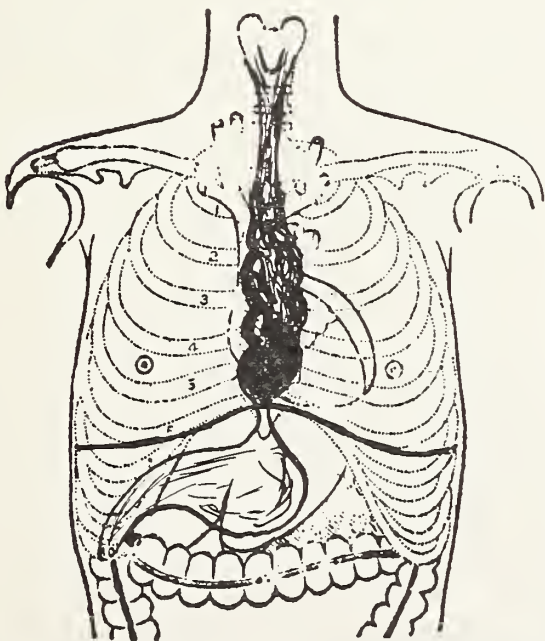
10. Traumatic Stricture of the Esophagus: This is usually caused by drinking caustics such as lye. This patient, age 6, drank boiling water. He was cured by fifteen dilatations at esophagoscopy.

No. 6. E. M., aged 6, tipped a teakettle of boiling water into his mouth, a burn and stricture of the esophagus resulted. Treatment was commenced promptly and he was dilated via the esophagoscope fifteen times. Later, when sixteen, he again had dysphagia, X-ray showed a 1943 penny at the entrance of his chest. He needed no further dilatation.

CARDIOSPASM



11. Cardiospasm in Esophagus of Average Length
Treatment: Esophagoscopy to rule out webs, strictures, and growths; anti-spasmodics, diet, dilatation with mercury filled bougies or pneumatic bag, rarely surgery.



12. Cardiospasm in Long Redundant Esophagus.

Cardiospasm is a condition in which the lower end of the esophagus does not open to allow food to pass into the stomach. Certain early cases or perhaps all are at first of psychogenetic origin. Occasionally reflex stimulation from lesions in other organs may be a factor. As a result of esophagitis, webs and fibrosis may occur at the lower end of this organ.

These patients complain that food does not readily reach their stomach, and that after eating they notice a fullness beneath their breast bone, which sometimes lets go as food passes into the stomach. Coughing and choking in recumbancy from overflow into the larynx may be other symptoms, as is foul breath and regurgitation of sour food eaten some days before.

In treatment, some early cases respond to anti-spasmodics and a diet at body temperature containing a minimum of roughage. Cold foods or liquids, and, to a lesser extent, those which are very hot cause spasm. Another group of cases may be relieved by the passage of Hurst's mercury filled bougies, which may be obtained in various sizes. At a number of sittings the size swallowed is gradually increased until a size forty or forty-two French is reached. Between sittings the patient is instructed to pass a bougie at varying intervals. Still another group of cases may be treated by dilatation with a pneumatic bag. Ochsner and De-Bakey⁵ have described surgical operations that have been used when patients have not responded to the procedures mentioned above.

There were eighteen patients in this group, ages 20, 20, 29, 36, 37, 40, 45, 45, 50, 50, 52, 55, 56, 58, 60, 62, 63, 64. There were ten women and eight men. Three were successfully treated with anti-spasmodics and diet. One was relieved by the passage of an esophagoscope. Two were dilated with metal olives on a whale bone staff, one with success. Five were treated with Hurst's mercury filled bougies, four with complete success. Five were dilated with the pneumatic bag with success.

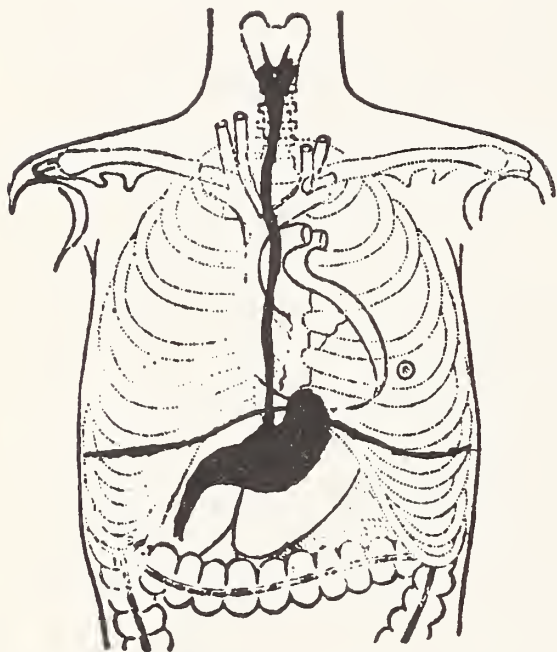
Mrs. E. M., aged 50, a menopausal neurotic school teacher, for the last two years complained of a feeling of fullness after eating and, that when she lay flat, she coughed and choked. She was treated with luminal, diet and

Hurst's bougies. She began to improve almost at once.

G. G., aged 60, twice entered the Maine General Hospital unable to swallow because his esophagus was obstructed with meat held by a cardiospasm. He was dilated with Hurst's bougies to a No. 42 which he still swallows occasionally. He was first seen eight years ago.

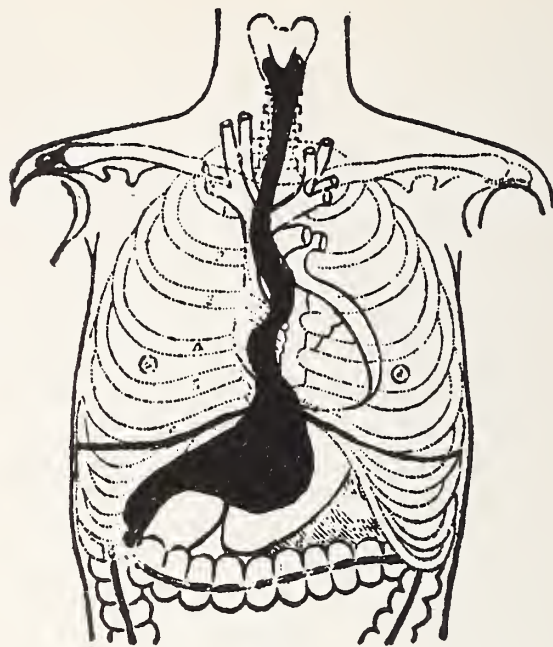
Mrs. W. O., aged 50, an extremely neurotic, menopausal woman with many frustrations, would take two or three hours to eat. She was treated with Hurst's bougies, thealin, luminal and diet. She did not improve. There was a large mental factor. She would not allow the pneumatic bag to be used.

DIAPHRAGMATIC HIATAL HERNIA



13. Para-esophageal Hiatal Hernia.

There are a number of varieties of diaphragmatic hernia, most of which are dependent on congenital structural defects. We are concerned only with hiatus hernia of which three varieties occur. First, that associated with a congenitally short esophagus, second, the para-esophageal hernia in which the terminal end of the esophagus maintains its position while a portion of the stomach herniates above the diaphragm; and third, the more common type in which the lower end of the esophagus and a portion of the stomach slide upward through the hiatus. Hiatal hernias are frequently found in course of fluoroscopies which are part of



14. Sliding Hiatal Hernia: They usually need no treatment, and are discovered at fluoroscopic examination of the stomach.

X-ray studies of the gastro-intestinal tract. The great majority are symptomless, but a certain number give rise to a variety of symptoms, discomfort, burning or pain after eating, particularly on laying down, a sense of pressure under the lower end of the sternum, a feeling that food does not reach the stomach, regurgitation, and occasionally anginal pain extending down the left arm. Most of these complaints arise from mechanical reasons. Over-stout individuals eating heavy meals in a slouching position tend to push a hernia through the diaphragm, where, at times, a portion of the stomach is filled with food is temporarily caught. This may also happen when the patient lies down. This suggests weight reduction, smaller more frequent meals with a minimum of roughage and standing after meals. When such symptoms are neglected hyperacidity, gastritis, and esophagitis occur, which may be relieved by alkalies, and may go on to peptic ulcer and narrowing of the lower end of the esophagus. Patients having symptoms from hiatal hernia should be esophagoscoped to rule out cancer, peptic ulcer and stricture at the lower end of the esophagus. Stricture may be stretched with the esophagoscope or dilated over a swallowed string. A still smaller group of cases have symptoms severe enough to demand surgery, the simplest form of which is interruption of the phrenic nerve with relaxation of the hiatal ring of the diaphragm. Har-

rington⁶ in a comprehensive article describes other surgical procedures.

There were five patients in this series, ages 42, 48, 61, 62, 65. Two were males and three were females. All improved with diet and posture. Four were of the sliding type while one had a congenital short esophagus. One when first seen had meat lodged above the esophago-gastric junction, another had a strictured area between the esophagus and stomach which was dilated with the tip of the esophagoscope.

BLEEDING FROM THE ESOPHAGUS

Bleeding from the esophagus is rare. It may occur from esophageal varices, perforating foreign body, malignant disease, rupture of the esophagus or bleeding peptic ulcer.

ESOPHAGEAL VARICES^{7, 8, 9, 10}

When hematemesis occurs in a patient with cirrhosis of the liver and signs of portal obstruction, rupture of esophageal varices should come to mind and injection of such varices with a sclerosing solution via the esophagoscope should be considered.

There were six patients in this group, their ages were 44, 52, 58, 59, 80. One was a female. All had cirrhosis of the liver with enlarged spleen and portal obstruction.

Three had an initial massive hematemesis and died within the next few days. It is doubtful if injection of varices could have been done. Two patients, one of whom lived a month and was kept alive by transfusions, and another who had nine severe hematemesis in two years might have been benefited. All of the foregoing cases were proved to have ruptured esophageal varices at autopsy.

M. O., aged 59, began to have episodes of hematemesis 4½ years before her death. She was considered to have Banti's disease. Three and one-half years after the onset she had a splenectomy but continued to have hematemesis. Her esophageal varices were then injected a number of times. She eventually died of her disease.

PERFORATING FOREIGN BODY

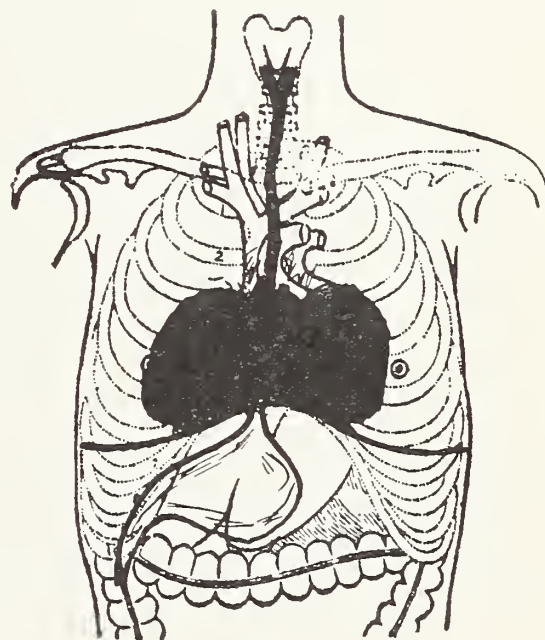
Perforating foreign bodies in the esophagus are more apt to cause mediastinitis than hemorrhage.

J. M., aged 53, died on admission to the Maine General Hospital, as the result of bleeding from the mouth. He had consulted a physician a week before about the possible lodgment of a chicken bone. Autopsy showed a perforation of the aorta.

RUPTURE OF THE ESOPHAGUS¹¹

Rupture of a healthy esophagus from external violence or after violent vomiting following a heavy meal may occur. This is said to be more common in alcoholics.

The symptoms are sudden agonizing pain, rapid respiration, cyanosis, quick pulse and collapse. Pneumo-hydro-thorax generally occurs on the left side. Subcutaneous emphysema may occur at the neck. Swallowing, strangely enough, is not particularly disturbed. Early X-ray pictures should aid diagnosis. A trans-thoracic approach with surgical repair is possible.



15. Rupture of Esophagus: This may occur in alcoholics. This patient recovered after operation by Dr. Overholt of Boston.

G. C., aged 50, was on a fishing trip. He and his companions became intoxicated. There was rough-house. He did not feel well and continued in bed for four days. He kept on drinking. His companions at camp stated that his neck was much swollen at first and crackled when it was touched. He was seen by a physician and sent to the Maine General Hospital. There was still some subcutaneous emphysema

about his neck, both bases were dull, and signs suggested a hydro-pneumo-thorax. When he was examined by fluoroscopy with a barium mixture, much ran out into the bases of both pleural cavities. He was operated on by Dr. Overholt of Boston and recovered despite the whiskey, food and barium in his pleural cavity.

PEPTIC ULCER^{12, 13}

Peptic ulcer occasionally occurs in the esophagus. It is not infrequently found at the narrowing between the esophageal and gastric mucosa in a congenitally short esophagus. It has been reported in hiatus hernia, cardiospasm and occasionally in an esophagus without anatomical anomalies. Treatment should include a Sippy or modified Sippy diet, administration of powders containing bismuth, sleeping with the head high at night to prevent regurgitation of acid stomach content, and touching the ulcerated area with silver nitrate at esophagoscopy.

One case occurred in this series in a child with a congenitally short esophagus.

C. D., aged 4, when first seen, had a penny lodged opposite the fifth dorsal vertebra. On removal this was shiny and bright and seemed thinner than the average penny. It was thought that this was due to the action of regurgitated gastric juices. He had had pain beneath his sternum at times. The strictured area was always lined with fibrin, the result of superficial ulceration.

COMPRESSION OF ESOPHAGUS FROM WITHOUT

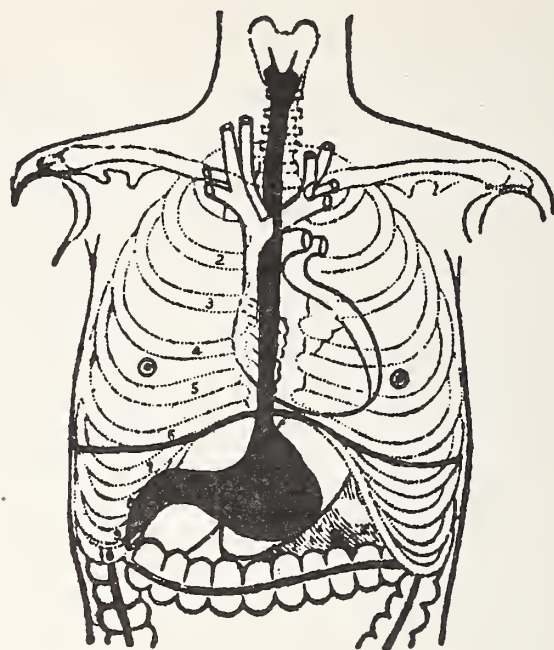
Compression of the esophagus by aneurysm, tortuous aorta or tumor of the mediastinum is an occasional cause for dysphagia.

A. C., aged 54, had complained of discomfort in his chest and increasing difficulty in swallowing. X-ray study showed the esophagus compressed by a mediastinal tumor. This was considered to be Hodgkin's disease. It shrunk down with deep X-ray treatment.

FIBROMA OF THE ESOPHAGUS

Benign growths occasionally occur in the esophagus.

There were two females in this series, aged



16. Compression of Esophagus from without: This may occur from aneurysm or from mediastinal tumors.

72 and 48, both had fibromas at the entrance to the esophagus.

Mrs. K. F., aged 72, for the last few years had noticed that there was something in her throat in the vicinity of her larynx that she continually tried to swallow. Mirror examination showed a rounded tumor behind her larynx that appeared or disappeared as she regurgitated or swallowed. It proved to be a fibroma attached to the posterior wall of her esophagus at her crico-pharyngeus. It was removed.

CANCER OF THE ESOPHAGUS

Cancer of the esophagus until recently has been considered a hopeless disease. In so silent an organ, early diagnosis can only be made if all signs of abnormalities of the swallowing function are adequately studied by X-ray and esophagoscopy. Laryngeal paralysis, pain in back, and low grade temperature suggest advanced lesions as do metastatic nodes over the clavicle, on the rectal shelf or in the lung fields.

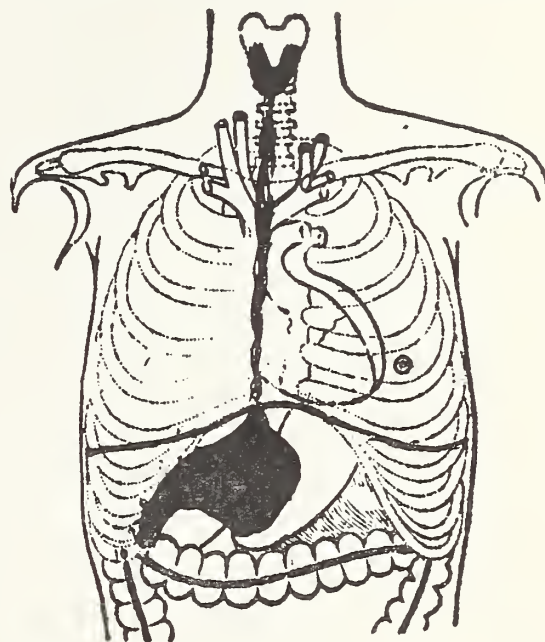
Surgery now offers some encouragement to patients whose growths are located between the aortic knob and the stomach, provided that they are in sufficiently good physical condition to stand difficult surgery, that they have been thoroughly studied by X-ray and esophagoscopy, and that their growths have not been found to be too far advanced. Sweet, Churchill,^{14, 15, 16, 17} Garlock,¹⁸ and others are perfecting

a transthoracic approach for resection of the esophagus and anastomosis with a mobilized stomach high in the chest. The surgical treatment, of cancer of the esophagus, however, is still in its infancy and it is difficult to predict whether it will ever give rise to more than 10% five years cures in operable cases.

Patients having carcinoma of the esophagus suffer from strangling spells and respiratory infection due to the overflow of saliva into the tracheo-bronchial tree, dehydration, starvation, and cachexia. Pain is rarely an important factor. Paliative measures should be primarily directed toward making the patient comfortable while he lives rather than merely prolonging his life. Deep X-ray treatment occasionally is curative. It is always followed by swelling which may shut off the esophagus completely for a week or more so that if this type of treatment is to be used the patient should already have had a gastrostomy or should be prepared to have one. In the upper esophagus we have used radon seeds in conjunction with deep X-ray treatment. We have not used radium within a tube placed in the lumen of the lesion. We have not used the deep X-ray treatment in lesions of the lower one-third of the esophagus, believing that radiation over the liver would add more to the patient's discomfort than it could possibly do good. Intubation of the narrowed area is possible, but we haven't used it although occasionally a Levine tube has been passed and kept in place for some time. We have dilated carcinomatous strictures over a swallowed thread repeatedly and have not as yet perforated the esophagus. In so doing, we believe that we have kept the patient swallowing by mouth for a longer period and have postponed gastrostomy. Gastrostomy, however, is not the worst thing that could happen to a patient provided that it is done reasonably early and the surgeon realizes the value of repeated infusions until the patient can be established on an adequate liquid and caloric intake via his gastrostomy tube. It does put the esophagus at rest and permits feeding despite swelling due to deep X-ray treatment.

There were 25 patients in this series who had cancer of the esophagus. Seven growths were located in the region of the crico-pharyngeus, three above the aortic knob, five in mid-

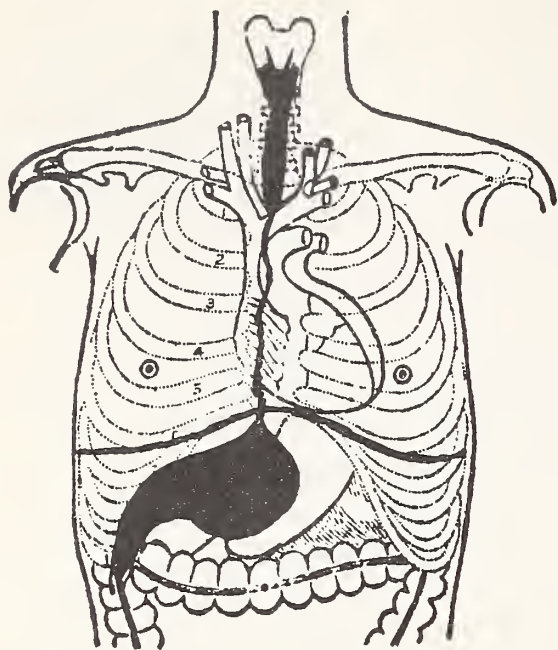
esophagus, six in the lower third, four in the hiatus. There were thirteen males. In ages, there was one in the third decade, three in the fourth, three in the fifth, eleven in the sixth, five in the seventh, and two in the eighth.



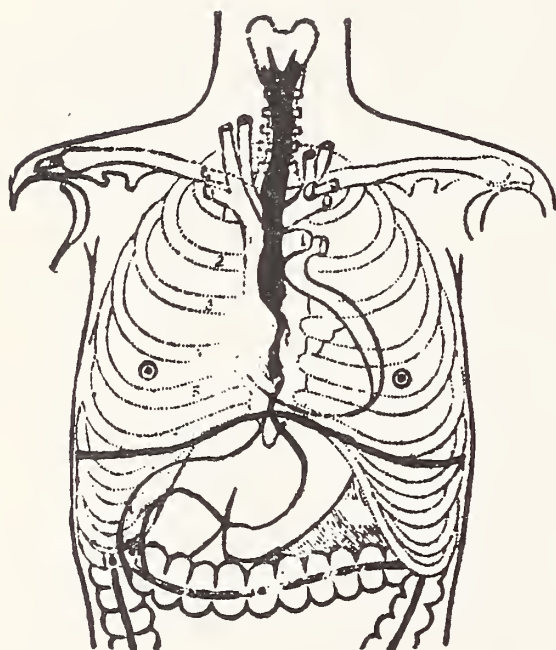
17. Cancer of Esophagus at Crico-pharyngeus: Seven females, ages 43 to 75. Death after diagnosis and treatment, 6 months, 6 months, 6 months, 9 months, 15 months, one died in 3½ years from an intercurrent disease, one living and well, seven years.

There were seven patients, all women, whose cancers were located in the region of the crico-pharyngeus. Their ages were 43, 48, 58, 62, 65, 66, and 73. All but one had grade I epidermoid carcinomas. The other had a grade II. They lived 6 months, 6 months, 6 months, 9 months, 15 months, 3½ years, and one is still living and well after seven years. The three patients who lived the longest had deep X-ray treatment, radon seeds and gastrostomies. The patient who lived 3½ years died of an intercurrent disease, a hemoplaxia. The patient who lived 15 months took the gastrostomy tube out and later had a second gastrostomy.

There were three patients, all men, who had cancers in the upper third of the esophagus above the aortic knob. Their ages were 61, 70, and 71. They all had grade I carcinoma. They lived from the time of biopsy, 1 month, 7 months, and 18 months. The patient that lived 18 months was given morphine early and I believe that he was made as uncomfortable by his morphine addiction as by his disease. The last six months of his life he had an esophago-tracheal fistula proved by X-ray.



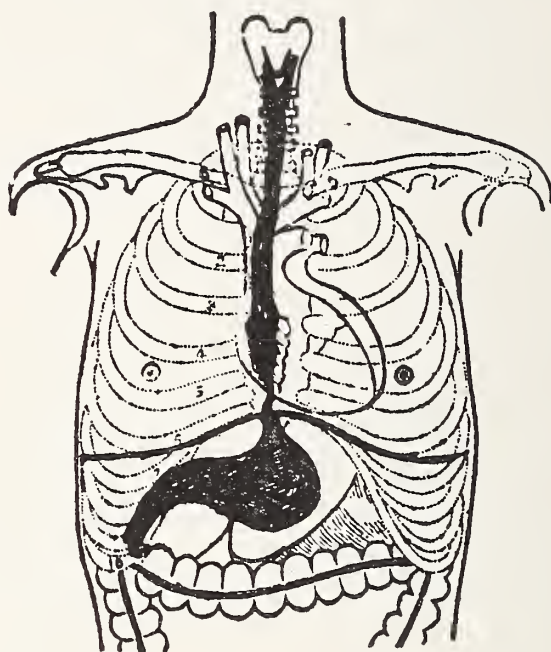
18. Cancer of Esophagus above Aortic Knob: Three males, ages 61 to 71. Death after diagnosis, one month, seven months, eighteen months.



19. Cancer Mid-esophagus: Three males, two females, ages 51 to 73. Death after diagnosis, one month, three months, eight months, nine months, and one is alive after seven and one half years.

There were five patients, two women and three men, whose growths were in mid-esophagus. Their ages were 51, 55, 66, 71, and 73. Four had epidermoid cancer, grade I. They lived 1 month, 3 months, 8 months, and 9 months, from the time of their diagnosis. Three complained of substernal pain. The remaining patient, Mrs. P., aged 50, had difficulty in swallowing shortly after an abdominal operation. Esophagoscopy showed a web at the

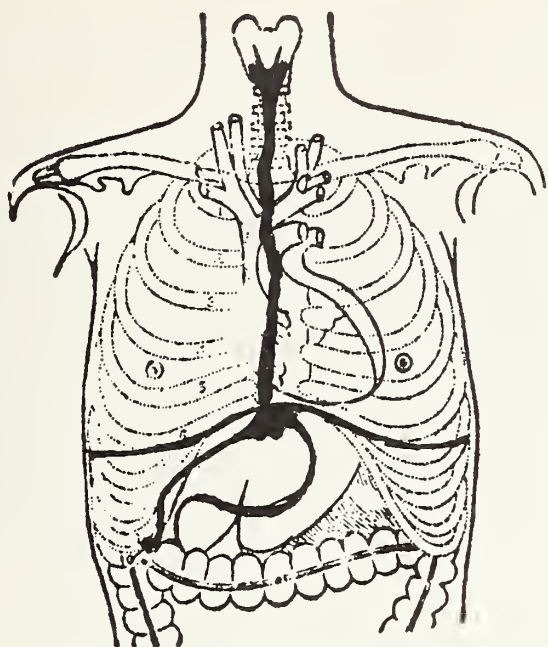
crico-pharyngeus and a strictured area in mid-esophagus that bled so readily that a biopsy was not taken. She was given deep X-ray treatment and six months later had a gastrostomy. Two years later, the gastrostomy tube was removed. An X-ray study made $3\frac{1}{2}$ years after she was first seen showed a smooth narrowed area which barium passed readily. She is still living $7\frac{1}{2}$ years later. One was operated upon by Dr. Overholt in Boston and died the eighth day from suppression of urine.



20. Cancer, Lower Third of Esophagus: Five males, one female, ages 47 to 69. Death after diagnosis, 1 month, 6 months, 6 months, 6 months, 7 months, and one year.

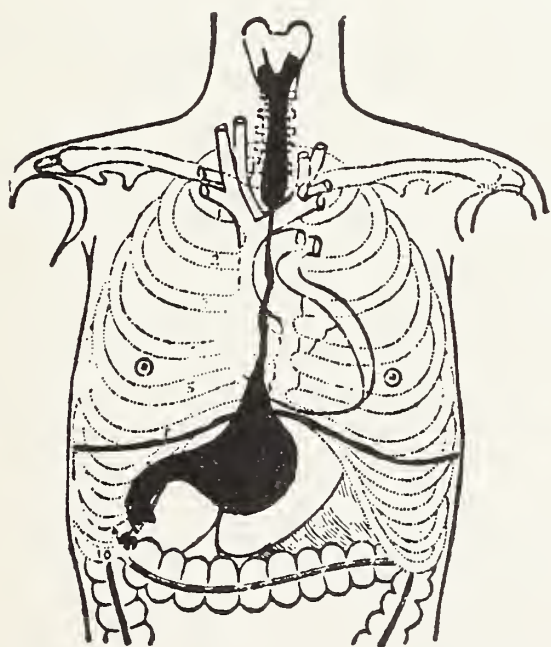
There were six patients whose growths were in the lower third of the esophagus, five were males. Their ages were 47, 61, 65, 66, 68, and 69. Five had epidermoid carcinoma, grade I, and one an adenocarcinoma. One lived 1 month, three, 6 months; one, 7 months; and one, 1 year after diagnosis. None of these patients were dilated, received deep X-ray treatment or had gastrostomies. It is probable that today at least two of these would now have been candidates for surgery.

There were four patients whose growths were at the hiatus, two were males. Their ages were 35, 60, 80, and 82. Two had epidermoid carcinoma, grade I, one an adenocarcinoma, grade I and one a grade III. They lived 1 month, $2\frac{1}{2}$ months, 6 months, and 6 months from the date of their diagnosis. The 35-year-old patient had had dysphagia, regurgitation



21. Cancer at the Hiatus: Two males, two females, ages 35 to 82. Death after diagnosis, 1 month, 2½ months, 6 months, and 6 months.

and pain under the xyphoid for five months. A fungating mass about one-third of the stomach was found to be involved. He had a grade III adenocarcinoma. The 60-year-old patient had a pre-existing cardiospasm and a chicken dinner had to be removed from his esophagus before the carcinoma was found. A gastrostomy was performed. The 80-year-old patient was dilated three times over a thread,



22. Difficulty in swallowing and suggestive X-rays in a person of cancer age does not always mean cancer. The patient should be esophagoscoped.

Mrs. C., aged 78, had a prune stone above the narrowing of a congenital short esophagus. She lived to be 96.

he elected not to have a gastrostomy. The 82-year-old lady had a carcinoma at the hiatus which involved the stomach. She had a large sliding hiatal hernia. A duodenostomy was done as it was feared that a gastrostomy would leak. She died promptly.

Diagnosis of cancer of esophagus can't be made by X-ray alone. Mrs. C., aged 78, who always had to be careful in swallowing, began to have increasing difficulty. X-ray showed that the barium column almost stopped at about the level of bifurcation of the trachea. A month later, her physician was persuaded to have her esophagoscoped. A prune stone, which she had no recollection of swallowing, was removed from above a congenitally short esophagus. She lived to be ninety-six and did not have a cancer.

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Continued on page 295

Penicillin Treatment in the Pregnant Woman With Early Syphilis

ADRIAN H. SCOLTEN, M. D., Portland, Maine

Last week, I received a telephone call from a Maine physician who wished to know the most approved treatment of early syphilis in a pregnant woman. He told me that he had just completed giving her 3,000,000 units of penicillin, that the woman was in her eighth month of pregnancy, that her husband had had syphilis earlier and that she had presented an initial syphilitic lesion which was dark field positive. He asked whether it would be advisable to give some bismuth, an arsenical or more penicillin. It was evident that he wanted to know whether he had done all that he could according to the modern therapy for treatment of syphilis.

I frankly told him that I could not answer as authoritatively as I would like to. My judgment would be to give more penicillin, but as soon as I could get answers, I would give him answers from two or three recognized authorities on the use of penicillin in the treatment of early syphilis. It is difficult to keep up with the latest and the best in treatment but I was thankful that I knew the men who are the American authorities on this subject, and I knew that they would gladly answer the question that had me non-plussed.

I therefore wrote to the following three men: Dr. John H. Stokes, Professor of Dermatology at the University of Pennsylvania Medical School, Philadelphia, who has long been considered a world authority on syphilis and who has had a wealth of experience in the use of penicillin in the treatment of syphilis; Dr. J. Earle Moore of the John Hopkins Medical School at Baltimore, Md., who is also known as a world authority on the treatment of syphilis (his book on this subject has been the Bible of Syphilologists for some time); and Dr. Loren W. Shaffer, Professor of Dermatology and Syphilology at Wayne University Medical School, Detroit, Michigan, who is Director of the Venereal Disease Section of the Department of Health of the City of Detroit. I chose Dr. Shaffer as the third man because he always gives me good advice. I am well acquainted with

the medical institutions of Detroit, and I know that the work done under his direction in his set-up is of high quality for I have been there often and I also know that he has recently been doing much experimental work with penicillin.

Since all three of the above mentioned men are undoubted authorities on the subject, I am asking the Editor of the JOURNAL to publish their answers for the benefit of the members of the Maine Medical Association. These are the up-to-the-minute opinions of the "big three" on the use of penicillin in the treatment of the pregnant woman who comes to the doctor with early syphilis and who is still in the dark field positive or chancre stage.

Dr. Adrian H. Scolten,
32 Deering St.,
Portland, Me.

Dear Dr. Scolten:

I think that for the moment your doctor in Maine has done all for the pregnant syphilitic woman under his care that we would consider indicated at the present time—that is, if the infectious lesions have disappeared and the patient is responding symptomatically.

The procedure from this point on is not to add bismuth or an arsenical on the tail of a penicillin course, but to let the woman come to term and deliver. Her blood serologic tests should have quantitative titration performed at intervals of one month for the next six months. If the titer subsides steadily during that time and is approaching negative at the end of it, she can be observed for a still longer period if there are no signs of lesions recurring.

The management of the baby is also a matter of great importance. The child may have positive blood serologic tests at birth as a carry-over from the mother. It should, of course, be carefully examined for active lesions, probably none of which will be found however, and for other signs of damage from the infection earlier in its course. Its blood should be taken (not simply the cord blood) weekly for quanti-

tative titration, and if the titer falls steadily week by week, becoming negative without further treatment by the sixth to eighth week, the child will probably remain well, and requires no treatment unless serologic or symptomatic indications appear. On the other hand, if the child's reagin titer remains high or from a lower level rises to a higher one in the first several weeks after birth, it should be regarded as having syphilitic infection, and be treated accordingly.

We are satisfied that the response of the pregnant woman to 2.4 to 3.6 millions units of penicillin is phenomenal, and if anything, better than that in the male with early acute syphilis or the non-pregnant female. We have also obtained practically 100% protection of the child, and so have not been called upon thus far, except in one instance, I believe, to consider repetition and intensification with arsenicals and bismuth, of the original prenatal penicillin course.

Sincerely yours,

Signed—JOHN H. STOKES, M. D.

Sept. 11, 1946.

Dear Dr. Scolten:

This is in reply to your letter of Sept. 6th. I assume that the pregnant woman you describe had early syphilis with a positive dark field before she received 3 million units of penicillin; and that the dark field was not still positive after this time. If this is correct, I would urge that you tell the family doctor to continue penicillin in the 50,000 unit dosage until the patient has had 5 million units. I think it is unnecessary to give her any mapharsen.

I enclose herewith a reprint outlining the latest information we have concerning the use of penicillin in pregnancy.

Sincerely yours,

Signed—J. E. MOORE, M. D.

Sept. 11, 1946.

Dear Dr. Scolten:

I am in receipt of your letter of 9/6/46.

I am sure you understand we have not had sufficient experience to be didactic about either the most effective dosage or even the effectiveness of penicillin therapy in any type of syphilis. It must still be considered experimental. However, the collected experiences indicate that it has been very effective in the prevention of neonatal syphilis in the infant and I feel that the chances are at least 97% that the baby in your case will be O. K. The problem, however, as to whether the mother is cured or not can only be determined by observation. Total dosages of at least 2,400,000 units should be used and in the present unsatisfactory state of commercial penicillin available for the treatment of syphilis, we feel that it is desirable to give at least double this amount.

Your patient would have received at least 3,500,000 units of penicillin and this should prove adequate. I would suggest that she simply be followed with quantitative Kahn's and no further treatment administered. The baby should also have supervision say at monthly intervals during the first four months of its life. You do not state whether the mother was sero-positive or not, but if she was sero-negative she should remain so. If she was already sero-positive it may require one to three or more months for her to become negative. However, once negativity is established it should remain so. There is also the possibility of serological or clinical relapse. It is our procedure to follow them at monthly intervals for one year, two-month intervals during the second year, and three- to six-month intervals for a total of five years. She has probably a 90% chance of being cured.

I enjoyed your reprint "No Need for Change" and am heartily in favor of holding the status quo in the practice of medicine if this is at all possible.

Sincerely yours,

Signed—L. W. SHAFFER, M. D.

The President's Page

More and more frequently we are hearing the expression that the general practitioner is becoming a thing of the past.

Is this really happening or is it being brought about by the growing tendencies among the recent graduates for a still longer period of medical education? The tremendous advances in sciences in our country have overshadowed the classics, which has had its affect on all general education. Of course, it has largely been brought about by an attempt to educate all of the people regardless of their station in life. Consequently, a situation has developed wherein the classics have been pretty nearly given up. However, neither the classics nor the sciences can go on alone. In medicine especially since a doctor's education has just begun when he graduates from medical school, he needs a deep routed background which will fit him to live a well rounded life.

Another thing that is becoming evident, and this is having a great affect on modern medicine, is the fact that the vast increase in knowledge of the basic sciences and preclinical subjects has forced specialization in these subjects. The gaps formed become evident at once.

The fault has been found that the medical man was 26 or 27 years of age before he could get to work. In recent years, duty in the Armed Forces have added three to four years to this figure, which increased the average age to 30 or 31 before a practice could be started. Realizing this, it was suddenly proposed that the education of the medical man be shortened and the requirements lessened, but this worked out very poorly in that the people were much less efficiently served.

The Commonwealth Fund tried to have medical men go to the more remote districts under an agreement, but this did not work because the young doctors found themselves without any hospital facilities which they had been taught were so essential and without which they did not know how to practice. Could we expect that a young progressive man would continue under these conditions?

The rapidly widening scope of medical knowledge has made it increasingly necessary for the medical man to qualify himself more and more in some special branch of medicine.

We think it shows the line of thought in our young men as it seems to have become necessary to set up arbitrary boards in the different specialties. These boards have no legal affect on medicine but many young men are taking four and five extra years of preparation to be licensed by these special boards.

We believe this tendency has brought about the query "Are all doctors becoming specialists and the family physician becoming a thing of the past?"

We cannot deny that the increased knowledge acquired is good in every way.

I would advise the young physician that by increasing his qualifications for the practice of medicine, he has not become disqualified as a family advisor and friend.

The better prepared physician will retain the ideals of medicine. The family doctor is not passing! He is improving!

JOHN O. PIPER, M. D.,
President, Maine Medical Association.

Editorial

75 Per Cent of Polio Victims Can Recover Without Handicap

"Infantile paralysis as a public health menace can be eliminated, scientists are convinced, but not until three basic 'musts' are completed," according to an article appearing in the current issue of *Hygeia*, health magazine of the American Medical Association.

The author—Roland H. Berg, staff member of the National Foundation for Infantile Paralysis—points to the following as the three polio problems:

"The first imposed task is to identify completely the tiny virus causing the disease. Scientists have yet to discover its physical appearance, chemical structure and growth requirements. Given this knowledge, researchers may be able to find the specific chemical, drug, serum, vaccine or antibiotic to halt the virus without injuring the body.

"The second laboratory trial is to unlock the mystery of the nerve cell that acts as a host and sustains the virus. The chemical changes that occur in the routine life processes of this highly important structure must be learned. Scientists must have these facts before they can alter the cell and make it resistant to virus attack without intrinsic injury to the cell itself.

"The third and final laboratory task is to develop a rapid and accurate method of diagnosis or identification of the virus. At present, an acute case of polio is not difficult to diagnose by an experienced physician. Severe clinical symptoms of muscle weakness, pain, stiffness of the neck and back can be recognized by a doctor with sufficient polio training. But recent scientific evidence has disclosed that for every patient with the frank, recognizable symptoms there may be a score or more children and adults with the mild, vague symptoms attributable to other diseases or with no symptoms at all. These persons are a hidden menace in the spread of the disease, for they also excrete the disease producing virus in their nose and throat discharges as well as from their bowels. Certain laboratory diagnosis, at present, can be made only after inoculating monkeys with some of the carefully prepared material collected from the excretions of suspected polio patients. The procedure is painstaking and requires great skill. Weeks or months must pass

before definite results are obtained. Doctors are badly in need of a rapid and accurate means of making a diagnosis. Unless all carriers of the virus can be identified quickly and easily, adequate control methods to halt the spread of poliomyelitis will not be possible."

The author points out that despite some 40 years of research efforts "it is still impossible to prevent the occurrence of an epidemic or even one single case of infantile paralysis.

"The agent that may carry the polio virus and transmit it to human beings has not yet been found," he states. "No tangible evidence has been uncovered to incriminate flies, mosquitoes or animal agents. On occasions scientists have discovered that flies trapped in epidemic areas carry the virus of polio, but they have not been able to link a polio-laden fly with an actual case of human polio. It may be possible for flies or other insects to be incriminated more definitely, but at the present time scientists believe that the disease is more likely passed by intimate person to person contact."

The author states that recently scientists at Stanford University under the direction of Dr. Hubert S. Loring have been about 80 per cent successful in purifying the virus. "They conclude that it is probably protein in character, ranging in size from eight to 20 millimicrons. This is one of the smallest organisms ever studied by man."

Great improvement in treatment has resulted from recent research efforts which demonstrate that virus damage to the spinal cord and brain areas is often only temporary. "Modern methods of care calling for immediate hospitalization and the early and continuous use of physical therapy strive to maintain muscles in as healthy a condition as possible," according to the author. "Because doctors now realize that virus damage to nerve cells need not be permanent, they seek to keep healthy those weakened muscles awaiting the day when normal nerve impulses will once more permit them to act normally. With this philosophy and method of treatment, physicians report that three out of every four cases of infantile paralysis can recover without any handicap."

Re-organization of the Public Relations of the American Medical Association

Your delegate has asked the Editor of the JOURNAL for space in which to amplify that part of his report dealing with the recommendations for re-organization of The Public Relations of the American Medical Association.

Only a part of the Rich Report was presented by the Chairman of the Board of Trustees for consideration by the House of Delegates. The rest of the report was referred by the House to a special committee appointed by the Speaker of the House so that the entire report might be given consideration by this committee, working with the Board of Trustees, for submission to the House of Delegates at the mid-winter session to be held in Chicago early in December.

The special committee appointed by the Speaker follows: Chairman, William Bates (Pennsylvania), Barney J. Hein (Ohio), Allen H. Bunce (Georgia), David D. Scannell (Massachusetts), Thomas K. Lewis (New Jersey), Samuel J. McClendon (California), and Edward H. Cary (Texas).

The sections of the report introduced into the House in July and approved by the Delegates

upon the recommendation of the Board of Trustees, included establishment in headquarters office of a division of public relations under a full time, salaried public relations counsel; intensification of the activities of Council of Medical Service leading toward prompt fulfilment of the desire to set up throughout the Nation voluntary systems of prepayment against the cost of sickness, and extension through the JOURNAL and Hygeia to the medical profession and to the public of information regarding the progress of medical service and of the good for the American people, with special emphasis on the celebration in 1947 of the one hundredth anniversary of the American Medical Association.

In The Journal of the American Medical Association of September 28, 1946, is an editorial which deals with the Rich Report at some length. We will learn more about it in the near future. It seems to me to be important information for our members.

THOMAS A. FOSTER, M. D.,
Delegate to the American
Medical Association.

HOSPITAL STAFF MEETINGS

Open to the Profession

CITY	HOSPITAL	DATE
Augusta	Augusta General Hospital	1st Wednesday
Bangor	Eastern Maine General	2nd Tuesday
Bath	Bath Memorial Hospital	1st Tuesday
Belfast	Waldo County	2nd Friday
Boothbay Harbor	St. Andrew's Hospital	4th Tuesday
Caribou	Cary Memorial	1st Wednesday
Damariscotta	Miles Memorial	1st Thursday
Greenville	Charles Dean Hospital	2nd Wednesday
Lewiston	Central Maine General	1st Monday
	St. Mary's General	2nd Monday
Portland	Maine Eye and Ear Infirmary	1st Wednesday
	Maine General	2nd Friday
	Mercy	3rd Thursday
Presque Isle	Presque Isle General	1st and 3rd Tuesdays
Rockland	Knox County General	1st Monday
Rumford	Rumford Community	4th Wednesday
Sanford	Goodall Memorial	2nd Monday
Waterville	Sisters	2nd Tuesday
	Thayer	Every Thursday

The above list was compiled from a questionnaire sent out by the Maine Hospital Association. Additions or corrections will be made on notification to the Secretary, Maine Hospital Association, Thayer Hospital, Waterville.

COUNTY SOCIETIES**Androscoggin**

President, Romeo A. Beliveau, M. D., Lewiston
 Secretary, Wedgwood P. Webber, M. D., Lewiston

Aroostook

President, Clyde I. Swett, M. D., Island Falls
 Secretary, Thomas G. Harvey, M. D., Fort Fairfield

Cumberland

President, Elton R. Blaisdell, M. D., Portland
 Secretary, Joseph E. Porter, M. D., Portland

Franklin

President, Harry Brinkman, M. D., Farmington
 Secretary, James W. Reed, M. D., Farmington

Hancock

President, Raymond E. Weymouth, M. D., Bar Harbor
 Secretary, James H. Crowe, M. D., Ellsworth

Kennebec

President, Arch H. Morrell, M. D., Augusta
 Secretary, M. Tieche Shelton, M. D., Augusta

Knox

President, Howard L. Apollonio, M. D., Rockland
 Secretary, Freeman F. Brown, Jr., M. D., Rockland

Lincoln-Sagadahoc

President, Francis A. Winchenbach, M. D., Bath
 Secretary, Virginia C. Hamilton, M. D., Bath

Oxford

President, Harold W. Stanwood, M. D., Rumford
 Secretary, J. S. Sturtevant, M. D., Dixfield

Penobscot

President, George B. Weatherbee, M. D.,
 Hampden Highlands
 Secretary, Forrest B. Ames, M. D., Bangor

Piscataquis

President, John B. Valentine, M. D., Dover-Foxcroft
 Secretary, Norman H. Nickerson, M. D., Greenville

Somerset

President, Richard P. Laney, M. D., Skowhegan
 Secretary, Maurice E. Lord, M. D., Skowhegan

Waldo

President, Carl H. Stevens, M. D., Belfast
 Secretary, R. L. Torrey, M. D., Searsport

Washington

President, John F. Hanson, M. D., Machias
 Secretary, John Young, M. D., Jonesport

York

President, Carl H. Richards, M. D., Alfred
 Secretary, C. W. Kinghorn, M. D., Kittery

County Society Notes**Cumberland**

A meeting of the Cumberland County Medical Society was called to order by Dr. Elton R. Blaisdell, President, at the Maine General Hospital, Portland, Maine, on September 27, 1946, at 8.00 P. M.

Resolutions on the death of Dr. Benjamin B. Foster were read by Dr. Oscar R. Johnson.

Dr. E. E. O'Donnel reported on the Nurse's Registry. It was the opinion of his committee that such a registry would not furnish more nurses than are already being furnished, since the difficulty is one of a nurse shortage. He felt that a registry of this sort, which would involve the doctors, should not be controlled by nurses alone. It was further emphasized by him that the Cumberland County Medical Society should not only advise with regard to the policies of the Registry, but should also direct them. The society failed to take any action towards the Registry at this meeting.

Five physicians were elected to membership in the Society: Hilton H. Applin, M. D., Brunswick; Howard Ives, M. D., Portland; John T. Konecki, M. D., Portland; Eugene C. McCann, M. D., Portland; and J. R. Ridlon, M. D., Gorham.

A discussion of Section 1, Article 3, of the By-Laws concerning the composition of the society followed the election of the above members. This section states: "Every legally registered doctor of medicine residing and practicing in Cumberland County . . . shall be eligible for membership after having practiced in Cumberland County for one year." Of recent years this regulation has not been followed. Dr. Thomas A. Martin recommended that this section of the By-Laws be amended so that any physician, regardless of the length of his practice in Cumberland County, should be eligible for membership in the society. No action was taken on this motion, in-as-much as any proposed amendment to the By-Laws shall be sent to each member of the society at least 10 days in advance of the next regular meeting at which final action is to be taken.

The speaker of the evening was Dr. William German, Associate Professor of Surgery and Chief of the Division of Neurological Surgery, Yale University, New Haven Connecticut. His subject was "Spontaneous Subarachnoid Hemorrhage." He reported that in his experience at New Haven Hospital, they have been able to save the majority of individuals who have had a subarachnoid hemorrhage in the last few years. This has been accomplished by ligation of the internal carotid artery. He emphasized that prior to this time approximately 50% of all individuals who entered the New Haven Hospital because of subarachnoid hemorrhage died. His paper was very excellently illustrated by lantern slides, some of which were in color. Dr. German presented methods of diagnosis and the lantern slides of the arteriography were for the most part excellent. The possible complications were mentioned, and a discussion followed.

Dr. German conducted ward rounds at the Maine General Hospital in the morning, and an interesting clinic was presented by the staff of the hospital at 5.00 P. M., preceding dinner.

JOSEPH E. PORTER, M. D.,
 Secretary.

Hancock

A regular meeting of the Hancock County Medical Society was held at the Hancock House, Ellsworth, Maine, Wednesday evening, October 9, 1946.

It was voted to have future meetings on Friday evenings.

E. S. O'Meara, M. D., of Ellsworth, was elected to membership in our society.

George Maltby, M. D., of Portland, spoke to the society on "The Neurosurgical Treatment of Pain."

Hannibal Hamlin, M. D., of Providence, Rhode Island, spoke on "Psychosurgery."

Following the presentation of the papers there was a period of general discussion.

J. H. CROWE, M. D.,
Secretary.

Kennebec

The Kennebec County Medical Association held a regular meeting at the Gardiner General Hospital, Gardiner, Maine, on the 17th of October.

Three physicians were elected to membership in the Association: Richard L. Chasse, M. D., of Waterville; Merton N. Flanders, M. D., of Waterville; and Robert W. Wilson, M. D., of Togus.

A very interesting paper was presented by William V. Cox, M. D., of Auburn, on the subject "Recent Advances in Neuro-Surgery."

M. TIECHE SHELTON, M. D.,
Secretary.

Piscataquis

The annual meeting of the Piscataquis County Medical Association was held at the Blethen House, Dover-Foxcroft, Maine, September 26, 1946, at 8.00 P. M.

The following officers were elected:

President: John B. Valentine, M. D., Dover-Foxcroft.

Vice President: George C. Howard, M. D., Guilford.

Secretary-Treasurer: Norman H. Nickerson, M. D., Greenville.

Board of Censors: N. H. Crosby, M. D.; John B. Valentine, M. D.; and Philip B. Thomas, M. D.

Legislative Committee: Guy E. Dore, M. D.; John B. Curtis, M. D.; and Harvey C. Bundy, M. D.

Delegate to the Maine Medical Association: Ralph C. Stuart, M. D., Guilford. Alternate: Philip B. Thomas, M. D., Monson.

N. H. NICKERSON, M. D.,
Secretary.

York

The fall meeting of the York County Medical Society was held at the Henrietta Goodall Hospital, Sanford, Maine, October 8, 1946. Dinner at 1.15 P. M. was followed by the meeting.

There were seventeen members and guests present.

Resolutions on the death of Dr. Frederick C. Lord and of Dr. George R. Love, were read and copies sent to their relatives.

Dr. Edward P. Webber of York Harbor, and Dr. Armand S. Lincourt of Sanford, were admitted to membership.

It was voted to raise the yearly dues to Thirty-eight Dollars.

It was voted to have the annual meeting the second Wednesday in January at Kennebunk, Maine.

Dr. Stephen A. Cobb, President-elect of the State Association, gave a talk on the plans for the 1947 annual meeting of the Maine Medical Association.

Dr. Harry E. Christensen, of Portland, presented a very well received paper on "Meningitis."

C. W. KINGHORN, M. D.,
Secretary.

New Members

Cumberland

Hilton H. Applin, M. D., Brunswick, Maine.

Howard Ivcs, M. D., Portland, Maine.

John T. Konccki, M. D., Portland, Maine.

Eugene C. McCann, M. D., Portland, Maine.

Joseph R. Ridlon, M. D., Gorham, Maine. (By transfer from the Wayne County Medical Society, Detroit, Michigan.)

Kennebec

Richard L. Chasse, M. D., Waterville, Maine.

Merton N. Flanders, M. D., Waterville, Maine.

Robert W. Wilson, M. D., Togus, Maine.

York

Armand S. Lincourt, M. D., Sanford, Maine.

Edward P. Webber, M. D., York Harbor, Maine.

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News and Notices

John G. Towne, M. D., of Waterville, has resigned from the Maine Board of Registration of Medicine after 18 years' service.

Dr. Towne was first named to the board in June, 1928, by former Governor Owen Brewster.

Committee on Graduate Education

Panels Available for Programs of County Medical Associations

The Committee on Graduate Education has available for programs of County Medical Associations the following panels:—

"Diagnosis and Treatment of Accessible Cancer." Chairman—Dr. J. E. Porter, Maine General Hospital, Portland.

"Coronary Disease." Chairman—Dr. W. J. Comeau, Eastern Maine General Hospital, Bangor.

"Thoracic Injuries." Chairman—Dr. George F. Young, Redington Memorial Hospital, Skowhegan.

"The Acute Abdomen." Chairman—Dr. William V. Cox, Central Maine General Hospital, Lewiston.

"Renal Disease." Chairman—Dr. Eugene H. Drake, Maine General Hospital, Portland.

"Deafness." Chairman—Dr. Frederick T. Hill, Thayer Hospital, Waterville.

These panels will be available, not only for the formal evening program but for an afternoon clinic as well, if this is desired. County officers should contact the chairman of the desired panel direct and sufficiently in advance of the meeting to allow scheduling.

FREDERICK T. HILL, M. D., *Chairman,*
Committee on Graduate Education.

Progress Report of the Maine Study of Child Health Services

The state office of the Maine Study of Child Health Services sent out its schedules on September 11. The returns have been most encouraging. Slightly over half of the physicians in the state have returned their schedules, the dentists have responded with an even half, and three-quarters of the hospitals have given their returns. The seven district health officers of the State Department of Health and Welfare under the direction of Dr. Roscoe L. Mitchell, director, met in Augusta, September 6, and began their collecting of Community Health Services data.

Dr. Warren R. Sisson of Boston, national chairman of the American Academy of Pediatrics Study of Child Health Services, addressed a meeting of the Advisory Committee and the Executive Committee at the State House in Augusta, October 17, in which he described the progress of the National Study.

We are planning to send out duplicate schedules to those physicians who have not yet returned the schedules sent to them in September. We must not be satisfied with a 50 per cent report. Please help us to obtain a report of which Maine physicians may well be proud.

THOMAS A. FOSTER, M. D.,
State Chairman.

Scientific Exhibit Centennial Session — American Medical Association

At the Centennial Session of the American Medical Association to be held in Atlantic City, June 9 to 13, 1947, the Scientific Exhibit will include both the history of medicine during the past Century and the latest developments of medical science.

Application blanks for space are now available. All applicants must fill out the regular form. Applications close on January 13, 1947, after which time the Committee on Scientific Exhibit will make its decision and notify the applicants.

Application blanks for space should be procured as soon as possible. They are available from The Director, Scientific Exhibit, American Medical Association, 535 North Dearborn Street, Chicago 10, Illinois.

Venereal Disease Clinics

For the information of physicians wishing to refer cases of venereal disease for treatment, the State Bureau of Health announces that such facilities are available in the following locations:

Augusta, Bangor, Bath, Belfast, Biddeford, Bingham, Calais, Danforth, Eastport, Ellsworth, Grand Isle, Guilford, Houlton, Island Falls, Lewiston, Rockland, Rumford, Sanford, Waterville, Wilton, Millinocket, Old Town, Portland, Presque Isle, Winthrop.

Any physician wishing to refer a case may obtain the name of the clinic physician, in the town where the patient is to receive treatment, on request to the Director, State Bureau of Health, Augusta, Maine.

Esophageal Diseases—Continued from page 287

14. Churchill, E. D., and Sweet, R. H.: Trans-thoracic Resection of Tumors of the Stomach and Esophagus. *Am. Surg.*, Vol. 115, No. 6, Pp. 897-917, June, 1942.
15. Sweet, R. H.: The Surgical Management of Carcinoma of the Mid-Thoracic Esophagus. *Tr. Am. Acad. Ophlana (OTO)*, 47:75-91, Dec., 1942.
16. Churchill, E. D., and Swett, R. H.: Transthoracic Resection of Tumors of the Stomach and

Esophagus. *Ann. Surgery*, Vol. 116, No. 3, No. 4, Sept. and Oct., 1942.

17. Sweet, R. H.: The Surgical Management of Carcinomas of the Mid-Thoracic Esophagus. *New England J. Med.*, 233:1-7 (July 5, 1945).
18. Carlock, J. H.: The Surgical Treatment of Carcinoma of the Thoracic Esophagus. *Surg. Gyn. Obst.*, 70:556-560 (Feb. 15, 1940).

Proceedings

NINETY - SECOND ANNUAL SESSION

Maine Medical Association

POLAND SPRING, MAINE

June 23, 24, 25, 1946

FIRST MEETING, HOUSE OF DELEGATES

(Continued from the October Issue, Page 274)

CHAIRMAN PIPER: Dr. Joseph E. Porter was our delegate to the Rhode Island meeting. Is Dr. Porter here? [There was no response.]

Dr. Alvin A. Morrison, of Portland, was our delegate to the Connecticut State Medical Society meeting at Hartford.

DR. MORRISON: The Connecticut State Medical Society held their annual meeting in Hartford on May 1, 2 and 3, and they had, throughout the three days, a well-conducted meeting and programs and subjects were of major medical importance. The comment of the men there was the lack of a public address system, which detracted somewhat from the speakers' interest to us.

They voted at their meeting to have a full-time public relations man, and likewise voted sufficient salary to get a competent one.

Prepaid medical service was another important factor discussed. It was voted that this be accepted in some form or manner through the Blue Cross, but at the present time, the Connecticut State Blue Cross and the Insurance Commissioner are at odds because of financial difficulties, and it will take several months before Blue Cross contracts are straightened out; after that, the prepaid part of medical service will be added in, in some form or another.

A MEMBER: I move that we accept the report of Dr. Morrison as Delegate to the Connecticut State Medical Society.

This motion was duly seconded and was carried.

CHAIRMAN PIPER: Is there any new business to come before the meeting?

DR. OSCAR R. JOHNSON, of Portland: May I have permission at this time to take up the matter I mentioned a while ago? Two years ago at Rockland at the Annual Meeting, the House of Delegates went on record as favoring an amendment to the present Venereal Disease law. That amendment read that in reporting social diseases, or in reporting a social disease, a physician could do so by either number or name. However, the Legislature, as far as the patient is concerned, opposed reporting by name, and personally, I agreed with them. However, I continued to be very much disturbed because the clinic patients must be reported by name and address. That, to me, is unkind. It is undemocratic and, indeed, it is discriminating.

This injustice to clinic patients was recently brought to the attention of the Cumberland County Medical Society, and the Society, after a brief discussion, went on record as being opposed to such reporting.

Since our Legislature has, on two occasions, refused to have the private patients reported by name, I desire that the same courtesy be given to the clinic patients. I would appreciate it very much if we could have a little discussion on this matter.

CHAIRMAN PIPER: I see Dr. Mitchell, head of the

Health Department, here; perhaps he would have something to say on it.

DR. MITCHELL: The provision in the law was inserted when the law was first passed, in order to take care of the treatment of clinic patients, Doctor. However, this matter is one that can be taken care of administratively in the Bureau of Health. At the last session of the Legislature, a bill was written, I think, by Dr. Johnson and members of the Venereal Disease Committee, adopted by the President of the Association and supported by it. It failed to pass. It just eliminated that clause in the law which states that any one for whom financial obligations were incurred by the State must be reported by name. For some reason or another, the Legislature would not do that, and it simply turned down the amendment, and it remains as it was.

In other words, the law simply states that if the State incurs financial obligation, the name must be reported to the State Bureau of Health. And that includes clinic patients, as well as any other patients.

A MEMBER: I should like to ask you a question. Does that mean that the doctor reports his private patients by number, and that the clinic must report the patients by name and number?

DR. MITCHELL: It means that any patient for whom the State pays for their treatment must be reported by name.

DR. STEPHEN S. BROWN of Portland: It seems to me that that is class discrimination; because an individual is so unfortunate as to have to seek help for the treatment of venereal disease, why should that person be discriminated against? If you can get the information you need from a patient who is receiving treatment from their private physician and who is reported by number, why, then, cannot the Department of Health and Welfare do the same thing with regard to clinic patients, if it is necessary for them to know who the patient is? Can't they get the same information?

DR. MITCHELL: I think they get the information in either case. Whether or not the patient is private or clinic, the physician is able to co-operate, and we can get the information either way. Nevertheless, the law requires that they be reported by name, if the State pays for it. We don't object to changing the law.

DR. BROWN: In that case, I think an amendment should be offered. It looks to me like class discrimination. You put one group over here, to whom you extend favors, and the other group you do not, and they go over here.

DR. FOSTER: If that is the case, as Dr. Brown has outlined it, that the clinic patient must be reported by name and the private patient does not need to be reported by name, why is that?

DR. MITCHELL: The law does not mention clinic patients. The law says "patients for whom the State assumes financial obligation," but of course that includes clinic patients.

DR. FOSTER: Dr. Brown is right; they are discriminating against people.



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RESEARCH IN THE SERVICE OF MEDICINE

DR. JOHNSON: Four years ago, when this subject was taken up, Dr. Mitchell, Dr. Blaisdell and I were appointed a Committee to investigate concerning the same thing. This is the procedure that was accepted at that time by Dr. Mitchell:

Clinic patients were to be reported at Augusta by number, age, sex and color, and at the same time, a copy be made on the proper form, with the name and address and number to correspond with the copy sent to Augusta. This copy was to be kept at the clinic, in a special file and available on request only to the Bureau Director, the Venereal Disease Control Officer and the District Health Officer, or his representative.

There are two or three other paragraphs which I shall be glad to read, but this is the conclusion:

"Under a recent decision by the Attorney General's Department, the above procedure would appear to be in compliance with the present law."

Now why, when they agreed once, they later should insist upon the name and address, is more than I can see.

Furthermore, if that is so, why did Senator Thompson at the time, a year or so ago, when the new bill or the amendment was proposed (Senator Clough of Bangor also was present) look at him and say: "I thought this was an issue of receiving money in order to get money from the Federal Department, and you would have to have the name and address."

At that time, the amendment was read that the physician should be allowed to report by either name or number.

Now, if it is also necessary that you have to have the name and number, why is it that one clinic in Portland, Maine, has been receiving drugs all the time without sending in the name and address. I can state a few more like that.

DR. MITCHELL: Might I ask you to repeat that question, please?

DR. JOHNSON: It is simply this, Dr. Mitchell. You agreed back in July, in fact it was on July 28, 1943, that clinic patients would be given the privilege of reporting to the Bureau of Health on form D-11 by number, age, sex and color. That is what we agreed upon. Then sometime later a contract came out which insisted that the clinic physician, in order to get his cut, had to report by name and address.

Now, I contend that if it is necessary to report by name and address on these clinic patients, why does this particular clinic in Portland receive its medication from you folks, without sending in the name and address. I might also say that private physicians receive medication for treatment of their patients.

Would you object if I made a motion? If I am not allowed to do that, one of my conferees will do it.

DR. SMITH: To bring this matter to a head, in 1943, when the Delegates met in Augusta, this was thrashed out, and the Delegates were opposed to reporting by name, because it was a clinic patient, or because a private physician was receiving the material to give to that patient.

Coming to Cumberland County, where we had a meeting, we were opposed to reporting the name of a patient with venereal disease.

I move that this House of Delegates oppose reporting by name of clinic patients, when private patients are allowed to be reported by number only.

This motion was duly seconded by several of the members present.

DR. MITCHELL: Mr. Chairman, may I ask what that means, whether the motion is that the House of Delegates is to go on record that that is to be done, in violation of the present law, or that they are opposed to that principle?

As far as we are concerned in the State Bureau of

Health, we try to go according to the law; whether we believe that principle is right or wrong, we find it necessary to comply with the law. Now, I am not talking about the principle of the thing; I am talking about the law.

DR. SMITH: We are not making the laws; I say that we are opposed to that reporting by name. If we have to do it, all right. I haven't done it, and I am not going to do it.

DR. JOHNSON: If that is true, why is this clinic in Portland allowed to do that all the time?

DR. MITCHELL: Do they pay anything?

DR. JOHNSON: Not a penny. The reason why is because you agreed—this committee about which I have spoken agreed that clinic patients be reported to the Bureau on Form D-11 by number, age, sex and color, and the name could just be kept on file. You agreed to that. After you agreed to it, under a recent decision by the Attorney-General's Department, it would appear to be in compliance with the present law.

DR. MITCHELL: We later found out that that was not complying with the law. If I agreed to something that was contrary to law, then that was that.

DR. JOHNSON: I should like to have this House of Delegates not only oppose that, but do everything within their power to have that section of the law which states that any person under financial obligation, etc., deleted from the present law.

CHAIRMAN PIPER: Dr. Smith's motion is on the floor of this House of Delegates.

DR. SMITH: I wish to accept that as an amendment.

DR. SWETT: What is the amendment?

DR. JOHNSON: That the House of Delegates go on record as being opposed to that section of the law which states that in cases where financial obligations for treatment are incurred by the State Bureau of Health, the name and address of such person shall be submitted at once to the State Bureau of Health, and that that section be deleted, and that the House of Delegates, through their legislative representative, do everything within their power to delete it at the next session of the Legislative body.

DR. YOUNG: We are discussing a state law that requires patients receiving aid from the State, whether it be for cancer or tuberculosis or anything else to be reported.

Now, if we are talking about venereal disease, I would like very much to know it.

DR. JOHNSON: This refers simply to social diseases. That is what this law concerns, social diseases only.

DR. BROWN: In view of what has been said here, I should like to propose that the House of Delegates offer an amendment to the Legislative Committee to the present law of reporting by name and number, that all patients be reported by number only. That would then take out the objectionable features of this present measure, would it not, Dr. Johnson?

DR. JOHNSON: I just want it understood that I am not desirous in the least of interfering with the control of social diseases; it isn't that at all. But it does hurt me a little severely, when a man has complied with the law in this respect, he goes to the clinic, and he takes his treatment routinely, but he has to have his name and address go on record, and the other fellow who comes to my office, I don't have to give his name and address.

I think of the congenital children, too. I know of an instance right here in the State of Maine where a professional man, a well-trained man in his field, is congenital, and he has refused to be married in the State of Maine because of the fact that he knows his blood is positive. You cannot change his blood, if you treat

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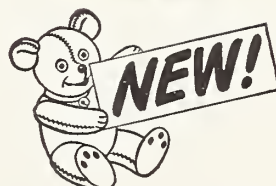
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him from now to kingdom come. He had to go out of the State of Maine in order to get married. He refused to have his name and address on record here. And that not only applies to one professional man, but to several.

I am also thinking of the boys coming home; they are infecting their wives. Their wives have been faithful to them; if not, they wouldn't have become infected. Why should they, when they go in for treatment faithfully, have their name on record at Augusta.

[The question was then called for.]

CHAIRMAN PIPER: You have heard the motion and the amendment as offered by Dr. Johnson. All those who are in favor of the motion and the amendment will please raise their hands. Those opposed?

I declare it a unanimous vote, and the motion is carried.

CHAIRMAN PIPER: Is there any other new business to come before the meeting?

DR. LAUGHLIN: There is something that I should like to speak about, and that is the tuberculosis work in the State. I have been chasing tuberculosis patients around the state, trying to round them up. Of course, it is not a new communicable disease. It is in the Department of Institutions, the Department of Sanitariums.

Now, if a doctor wants to get a case into a sanitarium, as you all know, he has to wait quite a long time. He has to call up Augusta, and try to find out when he can get that patient in. When he doesn't do that through medical men, he does it through the Department of Institutions. He may be impressed by the importance of getting the case in, in order to protect the family, but they will have to wait their own sweet time. Sometimes, they will get them in in an emergency, I will admit, but not always.

The Federal government has appropriated I don't know how many million dollars for tuberculosis work, to be divided up between the different states—I have forgotten the amount. That will enable us to have a Director of that Division, and it will also enable us to have in each sanitarium, which we haven't now unless put in recently, a medical-social worker who will keep track of all tuberculosis cases, and all cases Dr. Young will operate on. Up to a short while ago, no record was kept of the cases, and we didn't know where they were or what had become of them.

Tuberculosis is a communicable disease, and it is quarantinable. To my mind, tuberculosis cases are more dangerous than venereal disease cases; they will cause more trouble and suffering.

Tuberculosis sanitariums are in the Health Department in New York State, Massachusetts, Rhode Island. Rhode Island started in the Department of Institutions. I was talking with one of their men. They put it into the Social Welfare, and that didn't work. Now, it is in the Health Bureau.

Now, I am just bringing this before the Delegates here because I think it is very important that a medical subject should be in the care of medical men. Of course, the superintendents of all of our sanitariums are medical men, but the Director is not a medical man. I think that the doctors should talk in a doctor's language to a doctor who is in charge, and we have got a man now, borrowed from the United States Health Department a short time ago, and he hasn't a great deal of authority. He has the authority of starting tuberculosis clinics, and going around and checking and keeping track of the cases throughout the State, but he has nothing to say about the sanitariums. I think it would be a great benefit to the medical profession, and also to the public, if this Division were in the Health Bureau, because there are so many things that we could do, like child work, and many other things that haven't been done. Preventive work. Those of you who are familiar with this work know that there are prospective

cases that would benefit very much. There are going to be many cases in the future. We should get hold of the under-nourished children, and take care of them.

I bring this matter up to the House of Delegates in order that they might think about it. It will have to go to the Legislature to take it out of the Department of Institutions and place it in the Health Bureau.

DR. VICKERS: With reference to the medical school and the Executive Secretary, matters that are going to come before the Reference Committee, we delegates from Penobscot County have been definitely instructed by the County Society to vote for the \$35.00 dues. I, as a delegate, feel that I have no other alternative but to permit our votes to go in that direction. I say this, because irrespective of what the Reference Committee brings into the open meeting, I should expect these things would be discussed at an open meeting. I, as a delegate, only represent my county society, and I shall stick to what they have instructed me to do.

CHAIRMAN PIPER: The appointment of a Reference Committee is not to direct this House of Delegates in any way, shape or manner. It was only to discuss with them and get the opinions of the men and see if it would stop much of the debate that we might have here. I think that is the idea of it, altogether. There is no influence to be brought on this meeting whatsoever by them, and I don't think you would let it, if I wanted it.

Is there any other business to come before the meeting?

DR. KINGHORN: Just what is going to be the status of our uninstructed delegates? Will it be to vote for \$35.00 or put it down to \$25.00?

Have we any authority to vote for something we are not instructed to vote for?

DR. AMES: Of course, the Council is guided by the Budget and the number of members and the dues that have been paid, and the estimated possibilities of expenses. That could not be a fixed amount.

In the first analysis, there was also included at that time a suggested appropriation, another \$2,000 which had been estimated would be necessary, if we needed a special Legislative Agent to assume another office, which at one time we thought might have to be separated. But that was cut out. In re-adjusting the Budget and finding we had not expended the full amount each year, a further revision brought it down to a minimum of \$25.00.

Now, that is a suggestion only, of course. The original idea when sending out the letters was based on the \$35.00. That was the amount which was requested for each County Society to consider. That is very true. On later studies, it was believed that it could be done for \$25.00.

Now, if the House of Delegates feels that that is sailing too close to the wind in many of these estimated expenses, it is quite all right for you to insist on the \$35.00 and so vote, because, of course, the majority vote will rule.

DR. KINGHORN: We will have to, I think.

DR. AMES: That is the explanation given on the change and the revision of the estimate, plus the change in the items; it reduces it to a point where, on a bare minimum, it could be done for \$25.00. That is a matter of mathematics. Neither figure is absolutely to dollars and cents. The \$25.00 figure is nearer the absolute minimum; \$35.00 is all right, too!

I knew that question would come up, and that is the explanation of it. Of course, the Council, I would assume, would be allowed to work with \$35.00, because that would certainly give you a balance at the end of the year. It would be Maine Medical Association money, and it would be no loss in any sense of the word.

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*Stare, F. J., and Thorn, G. W.: Protein Nutrition in Problems of Medical Interest, J. A. M. A. 127:1120 (April 28) 1945.

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DR. VICKERS: It would seem to me, as Dr. Adam Leighton brought out, that this would be a new affair, and that the expenses incurred would be a little difficult to determine, and that it would be better to over-appropriate rather than to under-appropriate, at the start. It is always easy to go back, but it is not so easy to go ahead. The majority of the societies feel that the dues should be increased. We have voted for a specific figure. I think all the delegates in all of the other societies appreciate a conservative Council.

I, personally, feel that we ought to stick to the \$35.00 figure, rather than have a little bit left over at the \$25.00 figure, and I shall so vote.

DR. P. L. B. EBBETT: I may say that our Society voted for the \$35.00 figure. Like Dr. Vickers, we were instructed that way. I think that we have been pikers long enough. Other groups, like the osteopaths, etc., haven't tried to get by with \$15.00 a year. It seems to me most important to us to manage the affairs of this Association in the proper way. And I might say that \$35.00 doesn't amount to very much to any one of us, but it might amount to a whole lot in the Association.

Now, are we going to continue as we have in the past, when laws have been put through the State Legislature? If we had a man to instruct us and tell us what was going on, etc., we might have prevented some of these things having been done, or we might have done something about it. But, we let them slide. Why? Because we didn't have any money. I don't know, but it seems to me that this is no time, when the osteopath has gained the hold that he has in the state during the war, when he was not taken into the service and was left at home, to think of money and to scrimp. Why, in the smaller towns and communities, during the war, the osteopath was the only one left in the town.

If we do not see the light now, I am afraid that we are going to be too late. The matter of a few dollars to us is nothing when our life's work depends upon it. The amount of money is small, but the work is important.

DR. PLUMMER: Mr. Chairman, I should like to say a word in regard to the point brought up by Dr. Laughlin. It seems to me worthy of consideration. At the present time, and doubtless it is the same with you as it is with me, I live ten or a dozen miles from the hospital, and if I have a case I want to send in there, I call up and find out that they have a bed or a room, and they always do in an emergency, but in any case that can be put off a little while, those cases are placed on file.

It seems to me that there might be an arrangement made by which, by calling up or by writing, we could find out if there was a room. If there is room there, it seems to me that sometimes the case goes along for a few days and then has to wait a week or two or three weeks, pending consent or confirmation from Augusta.

Of course, you know, also, that there is a blank to be filled out, which inquires into the person's financial standing, as to whether he was able to pay the full amount. It seems to me that that could be determined after the patient arrived there, as well as before, because so far as I know, no patient is refused admission. So that that might be a comparatively simple matter to arrange. I don't know just how to go about it, whether it would be through a Committee of the Association or the Secretary or some one who could take it up with the Department in Augusta.

I feel that this suggestion of Dr. Laughlin's is well worthy of our consideration.

DR. LAUGHLIN: I might say that if you have a T-B man at the head of the Division, and if one of you fellows brought a patient in, in a hurry, or if you called him up, the Chief of the T-B Division and said: "Here, I have a bad case, and I want to get in at once. How are you fixed?" He would probably look at the list and tell you to send your patient along. So that instead of waiting for two or three weeks, you get your patient in immediately.

(To be continued in the December issue.)

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The Psychogenesis of Bronchial Asthma

DONALD L. KYER, M. D., Eastern Maine General Hospital, Bangor, Maine

"It is not an overstatement to say that fully fifty per cent of the problems of the acute stages of illness and seventy-five per cent of the difficulties of convalescence have their primary origin not in the body, but in the mind of the patient."—STRECKER*

INTRODUCTION

A century ago when almost nothing was known concerning the specific etiology of allergic diseases, asthma, hay-fever, urticaria and similar conditions were quite easily assigned to the realm of "nervous disease." Somewhat later, when the primary role of the nervous system began to be questioned by conscientious observers, the euphonious appellation of "idiopathic" was attached to these conditions. The advent of the concept of allergy with the subsequent profusion of experimental and clinical corroborations seemed to have demonstrated the true immunological nature of these syndromes. Feinberg¹⁵ only last year stated that, "Allergy is a concept that (fortunately for its own good) will not be allowed a prolonged rest. The uprising of a flourishing school of psycho-

analysts has revamped the old "nervous" theory concept of allergy into several fascinating theories of their own."

It is obvious that this author included bronchial asthma along with his so-called exclusive group of "allergic diseases" and feels that they are in no way to be considered unless it be on a purely allergic basis. It is the purpose of this paper to review some of the work which this "flourishing school" of psychoanalysts have done with relation to the condition known as bronchial asthma and with the hope of pointing out that perhaps the etiological status of this condition was even clearer before the advent of the concept of allergy.

Attacks of bronchial asthma are, in no small part, precipitated by emotional factors and, in many cases, these seem to be the sole precipitating factor or factors. This is apparent to anyone who would review the work of the psychoanalysts.

SOMATIC THEORIES OF ASTHMA

As a basis for better understanding of the psychogenesis of asthma, a brief discussion of some of the more important somatic theories seems appropriate and necessary.

* Edward A. Strecker, "Mental Hygiene." Nelson Loose-Leaf Living Medicine, Vol. VII, Chap. XII.

While many theories and mechanisms of asthma have been formulated from time to time, our present concept of asthma visualizes it as due to one or more of three essential features: (1) edema of the bronchial mucosa, (2) broncho-spasm, and (3) the formation of mucous plugs. There seems to be good reason to believe that any or all of these changes may be the important features of an individual attack.

The pathological changes in asthma consist mainly of mucous plugs in the bronchi, hyperemia of the mucosa, thickening of the bronchial walls and emphysema. Microscopically there is noted thickening and hyalinization of the basement membrane, infiltration of the bronchiolar wall with round cells and eosinophils with hypertrophy of the muscular layer.

Disturbance of respiratory function is an outstanding feature of the asthmatic attack and is chiefly concerned with difficulty of expiration. This respiratory embarrassment is due, all are agreed, to a narrowing of the lumina of the small bronchi, but concerning the nature of the mechanism of this encroachment there is no universal agreement.

Since the time of Helmont, Willis and especially Floyer, dating back more than two hundred years, the most popular theory of the cause of this narrowing has been spasmodic contraction of the circular musculature around the bronchi. That such a condition prevails has been a rather general impression but it has remained for Huber and Koessler²⁸ to strengthen it by the demonstration of the thickening of bronchial musculature, as measured with the micrometer on autopsy specimens. Because hypertrophy of muscle represents tonus and tonus represents work, they concluded that there must have been increased activity of these muscle fibers during life.

However, Coca⁵ and his associates do not admit that this proof is conclusive because the findings were not compared with those in other respiratory diseases. They argue that such hypertrophy may be found with bronchitis and in other pulmonary diseases.

Interference of intrinsic pulmonary mechanisms is regarded as a cause of asthma by Daly⁶ who suggests that temporary or permanent depletion of the bronchial arterial supply

to the nervous and muscular elements of the lungs may be responsible for pulmonary vasomotor and bronchomotor attacks. Some of the asthma cases may be explained on this basis according to the author, who suggests that more extensive search should be made for pathology of bronchial vessels. He does not speculate as to the possible role of emotional changes in this "arteriospasm."

Hofbauer²⁷ believes that irritation of the bronchi by direct air currents contributes to the pathogenesis of asthma. In animals, the occlusion of the nose caused a slowing of the respiration as well as a marked inflation of the lungs and a lowering of the diaphragm. In man, in the presence of an irritable nervous system, mouth breathing may result in an astmatoid condition. He claims that it is usually possible to abort an asthmatic attack if the patient will force himself to breathe through the nose at the time he feels the premonitory symptoms. Spasm of the diaphragm and of other muscles of respiration is a concept of the mechanism of asthma that has been discarded by almost everyone.

Kummell³² was the first to report surgical relief of bronchial asthma following an unilateral sympathectomy. Although he believed that the principal broncho-constrictor fibers ran in the vagi, he felt that a sufficient quantity might be interrupted in the sympathetic trunk to diminish bronchial spasm. Following his optimistic report many German, Russian and French surgeons hastened to remove various parts of the cervicothoracic sympathetic system. White and Smithwick,⁵⁵ however, report Rackemann's indication that in many kinds of asthma various non-specific operations, as well as acute infections, will often produce good results, at least for a time. Sooner or later, however, the asthma returns. When follow-up examinations are made for as long as two years, few patients will be found to have benefited.

Liek,³⁴ a surgeon who has followed the development of his field over a period of twenty-five years says, "It is no longer legitimate today to attack functional disturbances in the nervous system by means of operations, the least one can say concerning which is that they are superfluous. They have nothing to do with

exact research as long as the psyche is left out of account." Dunbar¹² believes Kummell's splendid results are to be particularly understood on the basis that in operations for bronchial asthma the decisive factor is not the character of the surgical procedure itself, but the personality of the surgeon.

The vagus stimulation theory of bronchial constriction was advanced by Brodie and Dixon.³ These experimenters demonstrated increased intratracheal pressure in the lungs of animals by stimulation of the vagus, and the same effect was claimed by them as a result of stimulation of the septal mucous membranes.

The theory of vagotonia as expressed by Eppinger and Hess¹³ conceives asthma and allergy as due to an imbalance of the autonomic nervous system. This concept is amplified by Handa²⁵ and by others. He considers asthma a vagus neurosis of respiratory organs. In vagotonic persons external influences such as temperature or climactic changes, may promote an attack of asthma. He admits that the causes bringing about a disturbance of the equilibrium of the vegetative nerves are not definitely known, but he claims that the organs of internal secretion play a dominant role. In this relation, Albright's¹ statement is timely, "Obscure diseases are not made more lucid by incriminating the endocrines."

Walzer⁵² discusses further aspects of the mechanism of the asthmatic paroxysm and says that the usual arguments for the muscle spasm are: (1) the demonstration of bronchial constriction in animals secondary to vagal stimulation; (2) the hypertrophy of bronchial musculature in the lungs of asthmatic persons; and (3) bronchospasm seen in the guinea pig after anaphylactic shock. He maintains that these arguments are not sound. Vagal stimulation has never been linked up with the mechanism of asthma, he says, in disregard of the work of Brodie and Smith.³ Bronchial muscle hypertrophy can result from any effort on the part of the bronchi to overcome the effects of stenosis or because of a persistent cough. Although there is similarity between guinea pig anaphylaxis and human asthma, he believes there to be so many dissimilarities that the identity of the two must be seriously questioned.

Thus, from this brief survey of a few of the outstanding somatic theories as to the etiology of bronchial asthma, one becomes aware of the fact that much research and thought has been expended in the direction of the establishment of a somatic etiology for this condition.

PSYCHOGENIC ASTHMA

INTRODUCTION

In the past twenty years many studies have been made and many papers published with relation to the effect of emotion on bronchial asthma. Authors recognized neurotic trends but generally felt these to be due to the disease itself rather than being causally related to the asthma. The observation was that the asthmatic often draws attention to himself. Present day observers, however, realize that the gain in such behavior is only secondary. Far deeper in the unconscious mental life lie the psychological factors which are revealed only by long and arduous study of the patient. In other words, the psychological factors have no such thinly disguised purpose as superficial observation might lead the casual observer to conclude.

Dejerene and Gauckler⁷ as early as 1915, wrote of the effect of the emotions on respiration and described cases of what they termed "nervous pseudo-asthma" which responded to treatment by reassurance. In fact even as early as 1679 there was consideration of a possible nervous role in asthma since Major³⁵ gives Thomas Willis credit for a detailed description of the disease in that year and states, "the Ancients allowed the cause of it to be only obstruction of the bronchi," but he himself referred "to the default partly of the lungs and partly of the nerves appertaining to the breathing parts."

I. Parental Attachment

The most comprehensive work on the subject has been done at the Institute for Psychoanalysis in Chicago and has appeared in monograph form, French, Alexander et al.¹⁶ In this study there were twenty-seven cases involved and all had proven allergic hypersensitivity in the judgement of an experienced allergist. At this point it is interesting that Weiss⁵³ in 1922

anticipated most of the cardinal points in the psychogenics of asthma as was to be verified later by this work of the Chicago Institute.

In studying these cases it is apparent that these patients with asthma varied much both in personal traits and in types of emotional disturbance for which they were seeking treatment. Certain common features, however, were shown in the group. In many cases the attacks were precipitated by a situation which might estrange the patient from a parental figure, usually the mother. These emotions were transferred to the physician during the course of treatment and then the patient feared losing the good will of his physician instead of the dread of losing his mother's love.

These patients became blocked however, time and time again, just at the point where the unconscious material was leading to a confession, which represented a try at reconciliation with the mother figure. Being afraid to confess, resulted in an attack of asthma. The authors conclude that asthmatic attacks tend to be precipitated by situations that threaten to separate the patient from some mother figure. There may be fear of actual physical separation but more often it is the danger of estrangement from the parental figure due to some temptation to which the patient is exposed. Here it is believed that the asthma attack has the significance of a suppressed cry of anxiety or rage which has been inhibited or repressed. In some of the treated cases, it was observed that as the asthmatic attacks ceased, attacks of crying appeared in their stead.

Various other workers have attached importance to the estrangement from the mother figure. Saul⁴⁷ in the same year as the above work was done, offered a general theory of the emotional factors in allergy. In all of his studies of symptoms of an allergic nature in which emotional factors were found to play a role, the central emotion related to the symptom was a strong longing for love, basically for that of the mother. This suggests that intense unsatisfied longing for love affects the individual's allergic sensitivity. Saul offers the further hypothesis that when the longing is especially intensified and frustrated or threatened with frustration, the allergic sensitivity is increased and the symptoms appear. He

found in studies of cases with common cold, hay-fever, urticaria and asthma, that states of repressed intense frustrated longing are of central importance. They operate apart from allergens by producing similar symptoms. They are then biological factors which influence and complement allergic sensitivity at least in some cases.

The respiratory system as well as the gastrointestinal system, in the opinion of Oberndorf⁴⁰ might assume the organic expression of the psychic conflict where the question of intake, retention or expulsion is concerned. His paper includes an excellent analytic case report. The emotional conflict of his patient centered about the repressed desire for love from his mother and led to asthmatic attacks. For a certain period of time the asthma disappeared when the patient was able to find an outlet for his emotions in violent outbursts. The analysis revealed a conflict between aggressive masculine and passive feminine tendencies. The respiratory disorder was associated by the patient with masculinity.

Freudenberg¹⁷ described the case of a fourteen-year-old boy who had had asthma since he was three years old. He was free from it in a health resort but relapsed as soon as he was home. It became worse after the birth of his sister. The author believes that this constituted a means of drawing his mother's attention to him. More or less in line with this same idea, Deutsch⁹ as a result of his work in 1939, thinks that many affections of the respiratory tract in childhood, coinciding with excessive emotional dependence upon the mother, formed a combination which might result in asthma.

II. *Breath-holding*

Alexander¹⁶ writes of the childish habit of breath-holding which also occurs in non-asthmatic children. The background seems to be a forceful protest against the environment and a spiteful nature as well. The other emotional factor in the asthmatic attacks shows the opposite tendency. There is suppression of expiration, crying, by which he expresses his protection-seeking attitude toward the mother. This suppression of crying represents the opposite tendency, the wish not to adhere to the dependent attachment to the mother. So, in the words

of Alexander, "the asthma attack, like a hysterical conversion symptom, expresses both opposing tendencies; the protest against wanting to reestablish a dependent relationship to the mother and the protest against separation by crying. This conflict seems to be the deepest and most primitive substratum of the asthma attack."

III. *Personality Constitution*

In regard to the effect of the psyche in allergy, two viewpoints seem possible. One of these is that allergic manifestations occur in a certain type of individual who is of a defective psychic or personality constitution. Lepage³³ speaks of "autophils" and considers them to be individuals who inherit a tendency to allergic manifestations. He describes them as pale people who flush easily, are subject to motion sickness, faint easily, have intense emotional reactions, show dark circles under their eyes easily, are lean, eat well and do not store flesh. Reichmann⁴⁴ also believes asthma to be, in part, a manifestation of a psychotic constitution.

As rather conclusive evidence for the neurotic basis for asthma there is the work of McDermott and Cobb³⁷ who, in a clinical study of fifty cases of bronchial asthma, studied each one from a psychiatric point of view. They offer the following summary of their study:

1. Thirty-seven of the cases seemed to have an emotional component in the asthmatic attack.
2. The thirteen "non-emotional" were predominately young males.
3. Twenty reported their first attack to have been emotionally precipitated.
4. Thirty-one reported that later attacks were often precipitated by emotions.
5. Thirty showed definite neurotic trends other than asthma.
6. Only twenty per cent of the emotional group were benefited by somatic therapy while fifty-four per cent of the non-emotional group were benefited.
7. In the neurotic group only twenty per cent were helped by drugs and biological products, while fifty per cent of the non-neurotic group were helped.

IV. *Allergists versus Psychoanalysts*

Stokes and Beerman⁵⁰ feel that American allergists have been especially sceptical of or indifferent to the possible psychogenic correlates of allergic phenomena as developed by British and German observers especially in the case of asthma. Eyerman¹⁴ also believes that allergists tend to neglect the emotional factor in asthma. He firmly believes that fear and apprehension have an important effect in the course of asthma and explains this by the fact that the emotions stimulate dyspnea and hyperpnea, which, in the susceptible person may result in the wheezing so typical of an asthmatic attack.

V. *Psychological Allergen*

Behavior patterns strongly suggest that something more than a physical allergen, or perhaps what might be called a psychological allergen, is adequate for the provocation of asthma, and by inference, to exacerbations of the asthma-linked dermatoses. Rogerson⁴⁵ cites the case of a child allergic to fish at home but not allergic to the same fish under the conditions prevailing at the Southampton Sanatorium where the child was free from asthma and eczema. Dunbar¹² quotes Metalnikov³⁸ as having demonstrated in animals an effect of the nervous system on inherited and on acquired immunization which, in the animals, has indicated that a conditioned reflex could be brought into play by diverse stimuli which provoked a discharge of agglutinins and alterations in blood count. It is suggested that the vegetative disturbance accompanying intense conflict may make an organism susceptible to substances not generally pathogenic, a phenomenon which may disappear with restoration of equilibrium.

Hanse²⁶ believes that psychotherapy alone is not of use in asthma being useful only in pure respiratory neuroses. Dekker⁸ says there is no nervous asthma and firmly believes an allergen to be at the bottom of every case of asthma. He, however, gives no consideration to the reflex production of agglutinins as was shown to occur in animals by Metalnikov³⁸ and that such could possibly occur in man.

Dracoulides¹⁰ maintains that allergic diseases should not be considered disease entities, but instead, simple reactions, symptoms which may be produced by diverse causes.

VI. *Emotional Shock*

Joltrain⁸¹ in 1916, was the first to maintain that emotional shock is always followed by metabolic disequilibrium. In collaboration with Benard² in 1927 it was possible to prove this thesis experimentally in a case of asthma and urticaria. A girl, eighteen years of age, was seriously frightened by a man. One hour later, she developed a giant urticaria. A violent attack of asthma followed and from that time on the girl was asthmatic. They performed an experiment in which they dropped a large electric light bulb behind her. At that time she shrieked and trembled and one hour later developed a violent asthmatic attack.

Ziegler and Elliott⁵⁶ studied six cases and considered that the relation between the emotion and the asthmatic attack warranted careful study in that psychological stimuli seemed capable of inducing bronchial asthma in certain people with no history of protein sensitivity. Hurst²⁹ points out that the most common psychological factor in asthma, in his observation, was expectation of an attack in certain places and under certain conditions, and attributed the fact that seventy-five per cent of patients are relieved when they enter a hospital to the expectation of benefit from treatment they are about to receive.

Schiata,⁴⁸ in 1941, undertook a study with the purpose of discovering whether emotional factors play a large part in asthma and to see whether reactions to inner conflict were uniformly associated with any particular personality type. Thirty-nine patients who were being treated for bronchial asthma in the Allergy Clinic of the Mount Sinai Hospital in New York City and one asthmatic boy referred from an outside source were given Rorschach Tests. After eliminating mental defectives and those found to have cerebral disease, only three of the entire group remained who might be called clinically free from neurosis or from neurotic character traits by psychiatric tests. The findings show, in his opinion, the asthmatic to be a sufferer from a psychoneurosis of an obsessive type.

In thirty cases of asthma analysed by Strauss⁵¹ in adults, nervous, psychic and emotional factors were present in the majority. He says that psychic association may take part in

several forms. Asthma in an allergic subject may be an expression of an anxiety state at its height reaching an autonomic outlet of a reflex type.

Jolowicz⁸⁰ reports on an interesting case of a forty-year-old woman with asthma of four years' duration who developed a fever with bronchopneumonic patches. Analysis showed a religious fanaticism and after appropriate psychotherapy, the fever subsided and she became well. In substantiation of the effect of emotion on the onset of asthma, Halliday²⁴ found that a primary onset of asthma in miners frequently occurred after the patient had undergone a particularly dangerous experience involving a clear-cut threat to life. Of thirty consecutive cases disabled with asthma, three were miners (described in previous paper).²³

VII. *Tension State*

The belief that an idea may become an effective stimulus to elicit an asthmatic response as well as hair or pollen, etc., has been expressed by Gillespie.¹⁸ He believes that asthma is an excellent example of what needs to be emphasized in the education of medical students. The body and mind are one and their interaction so close that no examination of a patient should neglect some consideration of what goes on in his mind. He very interestingly propounds the theory that paroxysms of asthma reach the explosive stage due to the fact that the eliciting factors, in a continuous fashion, produce a state of tension. Mental unrest here is expressed in asthma due to the patient's constitution, a pre-existing fear of lung disease, a pre-existing lung disease, a concept of breathlessness, etc.

VIII. *Autonomic Disharmony*

In his analysis of the psychic factors in juvenile asthma, Clarkson⁴ finds the following characteristics in almost every instance; intensification of emotion as part of autonomic disharmony; retreat into illness; organ inferiority; escape from reality; and habituation reflex grouped around fear. In a small but definite proportion of cases, he finds asthma is an expression of a definite psychosis. Most of his conclusions are drawn from an analysis of case histories, but in some instances, experiments

were carried out. In the case of a little girl who had fallen asleep with asthma unabated, the author whispered suggestions into her ear that the attack would stop, and in ten minutes the dyspnea had ceased.

Squier⁴⁹ remarks that epinephrine administered immediately before testing will obliterate or markedly diminish cutaneous reactions and thinks that, similarly, it is not improbable that in a person with a labile vegetative nervous system emotional factors may lower the threshold of reaction so that allergic equilibrium is upset and symptoms result. An unstable vegetative nervous system will accentuate and may, at times, through stimulation of the parasympathetic system, even counterfeit true allergic reactions. When a stage of partial tolerance has been reached, allergic balance can be upset by many non-allergic factors, among which emotional stress may be of major importance.

IX. *Anxiety*

Muhl³⁹ reports a cure by analysis of an asthmatic who had had the illness for thirty years. The psychodynamics of the syndrome in this individual were those of chronic anxiety based on a financial strain. This had originally been a source of deep frustration to the patient. Repression of the consciousness of the frustration had resulted in an anxiety which in turn had precipitated the asthma attack.

From his cases, Hall²² also feels that psychological factors may be of importance either in predisposing or in precipitating asthmatic attacks, and that the introduction of psychological methods of treatment in selected cases, whether this takes the form of simple assurance, removal of adverse environmental attitudes, re-education or resolution of psychoneurotic problems merits more attention than it has hitherto received. This is especially true when the individual is at the age when the habits of mind and bodily reflexes are less firmly established. In this regard, Pearson⁴¹ stresses the frequency with which over-anxiety, timidity, and lack of self-confidence are encountered as character traits of asthmatic children.

X. *Previous Respiratory Disease*

Dunbar¹¹ does not believe that patients undergo a somatic preparation in terms of early

respiratory disease but that the choice of organ is dependent upon a complex combination of psychic and somatic factors playing different quantitative and qualitative roles in the total makeup of the different individuals. Marx³⁶ however, is of the opinion that asthma develops on an organic basis (bronchitis, pneumonia, etc.), normally established before the first attack. He conceives that in predisposed individuals, organic disease stimulates "spasm centers;" later psychogenic stimuli may increase the tension and cause these parts to discharge as spasm of bronchial musculature.

XI. *Parental Solicitude*

Rogerson et al.⁴⁶ have worked with children with the so-called "asthma-eczema-prurigo" syndrome and report that of twenty-three studied at least seventeen were fussed over and protected by their parents to an unusual and even abnormal degree. They conclude, "In fact, if we might be permitted to generalize from this small group of cases, we might speak of an asthma-prurigo personality which could be summarized as follows: high intelligence on verbal tests with a poorer performance ability, marked over-anxiety and lack of self-confidence, considerable latent aggressiveness and egocentricity." Pinness⁴² studied the intelligence of a group of one hundred and forty-five allergic children and concluded that there were no decided differences from the control groups.

It seems possible that excessive anxiety in Rogerson's children and the overprotective attitudes of their parents may be, in fact, at least a reaction to the disability caused by the illness. However, in a number of his cases, there was as overprotective attitude toward the child on the part of the parent even before the development of the asthma in the child. An attempt was made to modify the attitude of both the children and parents. Parents were urged to be less solicitous and to encourage independent attitudes in the children. In many cases this type of therapy yielded results which were satisfactory even when the home environment remained the same.

XII. *Masochistic Gratification*

In the theory of Goitein¹⁹ by means of an attack the asthmatic subject, through a process of masochistic gratification, wards off threat-

ened danger to bodily integrity from repressed aggressive impulses, within, or from the presence of seductive current from without; and by frequent paroxysms and crises, secures at the same time, the distension, the gratification and the punishment, without recourse to external agencies. From his work with asthmatics, he also concludes that the various modes of unconscious projection in acts of self-expression (writing, speech, drawing and gesture) provide a ready index to the asthma personality and his disorder.

DISCUSSION

So far as I am able to ascertain there is a total absence of articles or references to psychogenic correlations in the literary reviews of one of the most important American Journals of Allergy. Gillespie¹⁸ points out in his discussion of the psychological aspects of asthma, that some specialists seem to have great difficulty in appreciating the parallelism between an asthma produced by injecting a vaccine beneath the skin, and an asthma which is elicited by injection into the patient, by way of conversation, of a topic that "gets under the skin" in a figurative sense. Moreover, in a fairly recent publication covering the ground of child psychiatry, Gordon²⁰ makes no reference whatsoever to asthmatic states in childhood. Allergists do not stand alone in holding to the older views with regard to the etiology of the disease.

Emotions undoubtedly play a large role in the persistence of asthma.** However, since some live through violent emotional experience and do not become neurotic or develop into asthmatics, one cannot conceive of a pure affect-causation of neuroses or of asthma. It would seem that the eliciting factor finds a psychic or possibly somatic preparedness.

CONCLUSION

The foregoing evidence of the existence of "emotional asthma" should be substantial enough, it would seem, and the "flourishing

school of psychoanalysts" may have something here, so to speak, after all. In spite of Feinberg's aforementioned criticism, perhaps the allergic concept has had a longer rest and more rest than it deserves. To snatch a phrase from Rackemann,⁴³ "All is not asthma that wheezes!"

Many physicians today, and I feel that the allergists figure most prominently in this group, have yet to appreciate that it is now possible to approach the neuroses by an etiologically oriented psychotherapy. It may never become possible for all physicians to become well enough trained to apply therapy in all neuroses, but it is certainly to be hoped, that 'ere many decades, everyone who calls himself physician will at least be cognizant of the fact that psychoneurotic symptoms are morbid expressions of emotional tendencies which, on account of their painful nature, the patient cannot face and consequently cannot express freely through voluntary motor behavior or through the normal ways of expressing emotions such as weeping, laughter, speech and all forms of human interaction.

Freud first applied the principles of psychological causality to seemingly irrational and unintelligible pathological mental phenomena. The daily activities of a normal person are always explained on the basis of a psychological causality. If a man is proud of a distinction or sad after bereavement, we find it natural and it is understandable to us on the basis of the immanent logic of the emotional life. However, if somebody is sad without suffering a loss or exhilarated even though he has received no distinction, or asthmatic even though he may have inhaled no horse dander, we are prone to dodge the issue by calling him crazy or at least even the most sympathetic among us are apt to consider him a bit queer. However, Freud has shown that the same psychological laws apply to the seemingly unmotivated psychological or psychopathological processes as to the normal ones. The semblance of irrationality in neurotic and psychotic behavior comes from the fact that some of the psychological motives are not conscious ones. As soon as these gaps can be filled in by reconstructing the repressed psychological content and by making them conscious, neurotic and psychotic phenomena become intelligible in terms of psychology.

** After completion of this paper, the report of Rowntree⁵⁷ in a recent issue of the *Journal of Psychosomatic Medicine* came to the author's attention. He discloses the important fact that the incidence and rejection rates of Selective Service for asthma have nearly doubled for the total group and for the Whites and Negroes as well.

The gulf between formal psychology and the rest of medicine should not be so wide as it is. The ordinary physician does not understand psychiatry, nor does he trust it entirely. However, every physician is a therapist and, consciously or unconsciously, he is a psychotherapist of a sort. It should be the aim of medical schools to impart as much psychiatry as possible so that future general practitioners and specialists shall be better able to apply the principles. Man will, some day we hope, no longer be lost among man's organs!

The institution of longer and more complete training in psychiatry might also help stem the tide of that disease of which the physician himself is the etiological factor namely, "hypochondria medicogenitica." For the present those of us concerned in the matter must, I fear, content ourselves with thought of the Latin phrase, *medicus non fit sed nascitur*, and hope that this truth carry us along until better training is possible and fuller understanding more prevalent.

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*Progress in Handling Surgical Diseases of the Colon**

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This paper is in the nature of a report of progress of recent advances in the methods of handling surgical diseases of the colon. This discussion is based partly on personal experience and partly on the recently accumulated data from the larger clinics of the country where large numbers of cases are treated and where specialization in this field is more likely to develop improvements in procedure and in technic.

It is gratifyingly apparent that marked improvement HAS taken place in the past 15 years. And one might almost say that the greatest advances have been made in the past 5 years.

The advent of the sulfa drugs and penicillin have undoubtedly added greatly to the safety of colonic surgery. But a final evaluation of the true worth of these drugs has, we believe, not yet been reached.

There are appearing in the literature increasing numbers of articles reporting comparable series of cases in which the morbidity and mortality rates do not show a marked improvement in favor of the drug treated cases. Some authors, notably Daland, reporting results from the Pondville hospital with the use of sulfathaladine, are enthusiastic over the results obtained, while Collar and Vaughn of the University of Michigan clinic are much more conservative. Collar even goes so far as to state that he believes that the sulfa drugs in the peritoneal cavity are of no value and its use in the wound is harmful, but he is in favor of sulfasuxadine in the preparation of the intestinal tract for operation.

If we analyse these various reports carefully, and note what has happened in our own experience, we are forced, I believe, to the conclusion that our best results are obtained where a careful selection of cases has been made, and in those early cases without pre-existing obstruction or toxicity and in which a most thorough pre-operative preparation has been carried out

and the most painstaking technic has been used.

In the hands of the experienced operator such cases should be expected to do well even without the aid of the sulfa drug.

If, however, one puts his faith in the sulfonamides, they should be given in sufficient dosage to bring the blood concentration up to 10 to 12 MG percent and to maintain this level over a period of at least 5 days before operation is undertaken. Anything short of this is of little or no value.

There is, so far, no accumulated evidence on the effectiveness of penicillin in the pre-operative treatment of colonic cases. Its use has so far been reserved for post-operative infective complications.

A careful analysis of results shows that there are 3 very definite reasons for the present improvement in our results in colonic surgery.

1. More careful and more logical pre-operative preparation.
 2. The use of the sulfa drug as a preliminary bacterio-static and of penicillin and the sulfa drug in post operative complications.
 3. Noticeable improvement in operative technic. We will take these up briefly in the order mentioned.
1. Pre-operative preparation. Attention should be especially directed to:
 - a. Providing adequate nourishment; a thing which has been neglected in the past.
 - b. Combatting anemia; which is often overlooked.
 - c. Restoring and maintaining adequate kidney function.
 - d. Cleansing and sterilizing the intestinal tract.
 - e. Careful check of the cardio-vascular system.
 - f. A pre-operative decision as to the anesthetic best suited to each individual case.

The old practice of semi-starvation and drastic purging has been definitely abandoned in favor of the more logical plan of providing a

* Presented at the 92nd Annual Session of the Maine Medical Association, at Poland Spring, June 25, 1946.

high caloric and adequate protein diet and the use of mild laxatives and frequent cleansing enemata rather than more irritative procedures.

Immediate attention should be given to anemia from which practically all of these patients suffer, and frequent transfusions given before, during and after operation.

Kidney function should be accurately determined before operation and a close watch kept on urinary output. This is one of the most important factors in elderly patients and those in not too good condition.

The choice of an anesthetic is of great importance and depends both on the availability of an expert anesthetist and the condition of the patient. When available, spinal anesthesia is the one of choice in most cases, because of better relaxation, general absence of post-operative nausea and vomiting and less interference with kidney function.

2. The use of the sulfa drug and penicillin:

Sulfasuxadine is seemingly the most satisfactory sulfa drug. However, many surgeons use sulfadiazine or others of this group with equally satisfactory results. Daland claims smaller doses and lesser toxicity for sulfathalidine.

A pre-operative course of vitamin C has been proven a valuable aid in preventing post-operative wound disruption.

Intra-venous amino-acid also has its place in pre-operative and post-operative treatment in preventing hypo-protenemia. This latter condition is now recognized as one of the most common causes of delayed convalescence, and unless corrected it may lead to serious results. In desperate cases one may be deceived in spite of the fact that he makes adequate restoration of lost electrolytes but fails to supply sufficient protein, and consequently loses his patient.

If mild degrees of obstruction exist—but not enough to warrant preliminary cecostomy, the Levine or Miller-Abbott tube should be used for 24 hours before operation and continued post-operatively until the patient is passing gas normally. This greatly reduces post-operative distension, relieves tension on suture lines and adds materially to the patient's comfort and smoothness of convalescence.

All of these details of pre-operative prepara-

tion are of almost equal importance; no one being of outstanding value over any other, but all combined result in as nearly an adequate preparation as can be given.

3. Operative Technic:

I think it is generally recognized that it is not possible to completely standardize operative procedures on the colon, as there are so many factors, involving concurrent disease, and degrees of malignant extension, which can only be dealt with by individualizing each case as it presents itself. Fairly definite general principles, however, can be outlined and followed in a considerable percentage of cases.

It is now generally accepted that resection is justifiable, even if a cure cannot be expected, if such resection will give greater comfort and longer life to the patient. Even patients with liver involvement are often made more comfortable if the original lesion is eradicated.

The accumulated experience of the past 5 years shows that the tendency is definitely away from the multiple stage procedures of the past and that more favorable results are being obtained by primary resection and immediate anastomosis — particularly in growths of the transverse, descending colon and sigmoid. It is evident that such a procedure should be reserved for the early discovered lesion and the good risk patient and for those with a minimum of obstruction.

The Mickulitz type operation still has its definite place in some elderly or otherwise poor-risk patients, whom it is desired to get out of bed early. The chief objection to all exteriorizing operations is the fact that the procedure is marred by the necessity of multiple stages, long hospital stay, fecal drainage, infected wounds and resulting weakened scars.

Preliminary COLOSTOMY, proximal to the growth, has given away to preliminary CECOSTOMY; to be followed as soon as the patient is in condition, by resection and immediate anastomosis. Such anastomoses are most safely done by some method of aseptic technic. In cases where the growth is low in the pelvis the Furness clamp is of greatest assistance while in the more accessible regions, the Parker-Kerr

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The President's Page

It is with a great deal of pleasure that I announce the report from a meeting of the committee on Graduate Medical Education.

They have made the following suggestions.

1. Rendering assistance to physicians desiring refresher courses, and making recommendations for financial assistance when indicated.
2. Further development of hospital staff meetings and bringing these to the attention of members through the JOURNAL.
3. The inclusion of Clinico pathological reports from the various hospital groups in the JOURNAL each month (to be in charge of Dr. Porter).
4. Articles on progress in medicine to be made available for the JOURNAL each month. Assignments have been made in different subjects (in charge of Dr. Comeau).
5. Preparation of six Panel Discussions to be made available for county meetings.

There is not any society in any state that has come up with a broader program for the advancement of medical education than the one outlined above.

I want to heartily congratulate the Committee.

In another communication I have asked the various counties to have at least one meeting per month through the year.

We have made the statement that the Medical Association has a direct obligation in helping to advance Medical Knowledge.

I hope you will take advantage of the panel discussion and this refers to the smaller societies throughout the state as well as the larger societies.

The graduate education committee has gone all out to give us something worthwhile, so let's use the material they are offering us.

It is our firm belief that we will all take much more comfort, earn much more, overcome obstacles much easier and be much more worthwhile as physicians if we will try in every way to advance our knowledge of medicine.

JOHN O. PIPER, M. D.,
President, Maine Medical Association.

Christmas Tuberculosis Seal Sale

The Christmas Tuberculosis Seal Sale opens November 25, 1946, and continues to December 25, 1946.

T. B. is killing one person every ten minutes or one hundred and forty-four persons per day in the United States. It is killing as many people as all other infections and parasitic diseases combined.

It is an established fact that the death rate though still appalling has been cut seventy-five per cent since the forming of the National Tuberculosis Association in 1904.

We should not be content with controlling the disease, but should go further and try to eradicate it. This can be done only with a tremendous amount of work and expense.

Let's get behind this Sale of Christmas Seals and buy just a few more ourselves and tell the Laity how great the amount of work that has been done, and what the possibilities are for totally eradicating the disease, if proper funds are available.

These funds come also wholly from the sale of Christmas Seals.

JOHN O. PIPER, M. D.,
President, Maine Medical Association.

Editorial

A. M. A. Joins World Medical Association

The American Medical Association, by action of the Board of Trustees at its last meeting, has become a member of the "World Medical Association"—an organization which will promote the interchange of medical information among the medical associations of the world, according to an editorial in the October 26 issue of THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

The editorial follows in full:

"At the end of September a conference met in London in which there were medical representatives of twenty-one European countries and ten countries outside Europe and at which the American Medical Association was represented by several observers appointed by the Board of Trustees. The meeting was held under the joint auspices of the British Medical Association, whose president, Sir Hugh Lett, presided, and the Association Professionnelle Internationale des Médecins. The latter organization was an assemblage which was constituted before the war to give opportunity for interchange of medical information among the medical associations of the world regarding mutually interesting problems. The new conference agreed unanimously that an international organization of medical associations should be established and should limit itself to matters of medical practice and social medicine. The French, Belgian, Greek and Dutch delegates indicated that every country had its academies for promotion of medical science and that the immediate need was for an organization to defend the rights of the ordinary practitioner, especially in view of legislation passed in many countries. Dr. T. C. Routley, representing the Canadian Medical Association, indicated the de-

sirability of an agency whereby the World Health Organization and UNESCO could make contacts with the medical associations of various countries. Ultimately the following platform was adopted for the new World Medical Association:

To promote closer ties among the national medical organisations and among the doctors of the world by personal contact and all other means available in order to assist all peoples of the world to attain the highest possible level of health; to study the professional problems which confront the profession; to organise an exchange of information on matters of interest to the profession, and to establish relations with, and to present the views of the medical profession to, the World Health Organisation and the United Nations Educational, Scientific and Cultural Organisation.

The members of the World Medical Association will be international medical associations representative of the medical profession in the country concerned. A subscription was fixed at 10 Swiss centimes per member for each national group up to a total of 10,000 members and 5 centimes per member above the first 10,000 with a maximum for any member association of 1,500 Swiss francs. Each member association will have two seats on the governing body. A professional committee of nine was established to draft a constitution and by-laws in French and in English to be submitted to the next conference, to be held in Paris. There are to be two secretaries for the World Medical Association, one in London and one in Paris. The American Medical Association, by action of the Board of Trustees at its last meeting, became a member of this organization."

Experience With Demerol in Europe

To the Editor:

The following observations may be of interest to you with regard to the controversy between Dr. C. K. Himmelsbach, Chicago, Mr. H. J. Anslinger, Washington, D. C., and Paul de Kruif, Ph. D., Holland, Mich. (THE JOURNAL, September 7).

In the spring of 1945 I acted as liaison officer between First Army Headquarters and a central "German Sanitary Staff" established temporarily to maintain the function of the large number of captured German medical installations. Repeated inspections of hospitals and numerous trips throughout the occupied area gave me an opportunity to become familiar with administrative and technical experiences and difficulties encountered by the German army.

A tragic accident led me to investigate the use of Demerol by the medical department of the German units then under our control. Allied troops which had opened a medical depot found a large stock of an alcoholic preparation of Dolantin (the German trade name for Demerol), mistook it for a beverage and drank numerous bottles; a large number of casualties resulted.

Consultation with German medical officers and pharmacists revealed that the staff had at this time 40 cases of known Demerol addiction in its files; that, furthermore, a large number of hospitals had abandoned its use for this reason. It is interesting to note that in Germany too it

had been assumed for some time that Demerol was less addicting than morphine, a theory which had been revised by the spring of 1945.

Subsequently I was called repeatedly by military government officials to examine cases of Demerol addiction in civilians. I remember one instance which illustrates convincingly the danger of the drug. A physician addicted to morphine submitted twice to treatment. After the second treatment he was advised to try Demerol and developed within three months an addiction to the substitute. During this period he performed an abortion and was committed to a sanatorium for clinical study. After several weeks an attempt to withdraw the drug was made; he developed no symptoms of withdrawal. It was suspected, therefore, that he had managed to obtain considerable quantities of the drug. Careful isolation revealed not only that his wife in weekly visits had issued Demerol to him but that she herself—after having taken the drug once or twice as a sedative, following her husband's confinement—had become a Demerol addict.

Although the case histories on pages 43 and 44 of the September 7 issue of THE JOURNAL contain convincing evidence against Paul de Kruif's statement, it might be helpful to add these experiences to the warning.

MAX SAMTER, M. D., Chicago.

J. A. M. A., Sept. 28, 1946.

The Psychogenesis of Bronchial Asthma—Continued from page 311

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COUNTY SOCIETIES**Androscoggin**

President, Romeo A. Beliveau, M. D., Lewiston
Secretary, Wedgwood P. Webber, M. D., Lewiston

Aroostook

President, P. L. B. Ebbett, M. D., Houlton
Secretary, Clyde I. Swett, M. D., Island Falls

Cumberland

President, Elton R. Blaisdell, M. D., Portland
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Franklin

President, Harry Brinkman, M. D., Farmington
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York

President, Carl H. Richards, M. D., Alfred
Secretary, C. W. Kinghorn, M. D., Kittery

County Society Notes**Aroostook**

A meeting of the Aroostook County Medical Society was called to order by the President, Dr. P. L. B. Ebbett, at 8.10 P. M., October 24, 1946, at the Vaughn House, Caribou, Maine. Seventeen members and four guests were present.

Ray A. Proctor, M. D., of Caribou, and Arthur P. Reynolds, M. D., of Presque Isle, were elected to membership in the Society.

The report of the Committee on the Proposed Medical School of Maine was presented by Dr. Clyde I. Swett. The discussion which followed stressed the following: 1. The Medical School must be Class A. 2. The best clinical professors available should be obtained. 3. The clinical facilities of the whole State should be utilized.

It was voted that a Committee on Fee Schedule composed of five men be appointed by the President, at his discretion, for the purpose of revision of the fee schedule for the Aroostook County Medical Society to be presented at the next meeting.

It was voted that the President appoint a Committee of three to study the shortage of nurses in Aroostook County, consider the problems, analyse the needs, and to then take up the situation with the Maine Hospital Association and the Maine Nurses' Association if indicated, in an effort to get some definite plan or action to bring relief. The following members were appointed: Dr. Clyde I. Swett, Chairman; Dr. Herrick C. Kimball, and Dr. Storer W. Boone.

It was voted to hold the Winter Social Meeting in Fort Fairfield on Wednesday, January 15, 1947.

Guest Speaker: George L. Maltby, M. D., Neurological Surgeon, Portland, Maine.

Subject: "Low Back Pain—By The Ruptured Intervertebral Disc."

CLYDE I. SWETT, M. D.,
Secretary.

Cumberland

A meeting of the Cumberland County Medical Society was held at the Maine General Hospital, Portland, Maine, on October 26, 1943. It brought to a culmination a series of clinics and scientific presentations as a part of Hospital Day at this institution, the program of which follows:

- 9.00 A. M. Surgical rounds.
Medical rounds.
- 11.00 A. M. Clinical Pathological conference.
- 1.00 P. M. Luncheon.
- 2.00 P. M. Medical Conference:
 - "Protein Replacement," Dr. Eugene H. Drake.
 - "Sarcoidosis," Dr. Elton R. Blaisdell, Dr. Jack Spencer.
 - Surgical Conference:
 - "Facial Paralysis," Dr. Albert C. Johnson.
- 3.00 P. M. Medical Conference:
 - "Mechanism of Abdominal Pain," Dr. Donald H. Daniels.
 - "Thiouracil," Dr. Ralf Martin.
 - Surgical Conference:
 - "Accident Room Statistics," Dr. Ronald A. Bettle.
 - "Toxicology," Dr. W. L. McVane, Jr.
 - "Agranulocytosis," Dr. George L. Temple.

5.00 P. M. Case Presentations:

1. "Cretinism," Dr. Philip Good.
2. "Strangulated Appendices Epiploides," Dr. Howard R. Ives.
3. "Chronic Nephritis," Dr. Richard S. Hawkes.
4. "Urethral Stenosis," Dr. Donald F. Marshall.
5. "Pseudo Tumor of Orbit," Dr. Richard J. Goduti.
6. "Bone Cyst—Femur," Dr. Thomas A. Martin.
7. "Choanal Atresia," Dr. Albert C. Johnson.
8. "Prolapse of Vagina," Dr. Carl E. Dunham.

Dinner was served at 6.45 P. M. The meeting was called to order at 8.00 P. M. by Dr. Elton R. Blaisdell, President. A very short business meeting followed, which consisted of an announcement of the proposed amendment to Section I, Chapter III, of the By-Laws, which states that "Every registered doctor of medicine residing and practicing in Cumberland County, who is of good moral and professional standing, who does not support or practice or claim to practice any exclusive system of medicine shall be eligible for membership after having practiced in Cumberland County for one year." The proposed amendment is to delete from this "after having practiced in Cumberland County for one year."

The principal speaker of the evening was Dr. Ira T. Nathanson who spoke on "The Influences of Castration and Hormones on Advanced Carcinoma of the Prostate Gland and Breast." Dr. Nathanson gave an excellent historical account of the development of the use of estrogens as a therapeutic procedure for both carcinoma of the prostate and carcinoma of the breast. He emphasized that in trying to evaluate such a treatment one should bear in mind the normal natural life history of both carcinoma of the prostate and of the breast. Women who have carcinoma of the breast and have not reached the menopause are frequently benefited by castration, plus the use of stilbesterol, and in women before the menopause who have not been castrated, it also reacts beneficially in retarding the growth of metastases. Stilbesterol is effective in treating cancer of the prostate; particularly does it retard the growth of metastases. From the laboratory standpoint there is also a reduction in the acid phosphatase. Dr. Nathanson cited several instances in which men who had been badly crippled by metastatic disease were able to resume their former employment following the use of stilbesterol. He gave a most excellent résumé of the literature concerning the problem of the use of hormones, and felt that the results from the treatment of malignancy of the types mentioned above were encouraging enough to warrant further study of the treatment of cancer by this method.

JOSEPH E. PORTER, M. D.,
Secretary.

A meeting of the Cumberland County Medical Society was held at the Maine General Hospital, Portland, Maine, on Friday, November 15, 1946. The meeting was called to order by the President, Dr. Elton R. Blaisdell.

The proposed amendment to the By-Laws to permit any physician to become a member of the society, regardless of how long he has practiced in the community, was not opposed by a majority of those present.

It was pointed out by the Secretary that any physician is eligible to buy liability insurance, regardless of whether he is a member of the county society or not. There is a slight increase in the premium, however, for non-members.

Mr. W. Mayo Payson, the new Executive Secretary of the Maine Medical Association, was introduced by Dr. Adam P. Leighton.

The following nominating committee was appointed to bring in a slate of officers at the annual meeting in December: Dr. Henry P. Johnson, Chairman; Dr. Albert Moulton, and Dr. G. E. C. Logan.

The principal speaker of the evening was Dr. Shields Warren, who recently held the rank of Captain in the U. S. Navy, and who participated in the Bikini experiments and studied the effects of the atom bomb at Hiroshima. His subject was "The Pattern of Injury Produced by the Atomic Bomb." He opened his presentation with a brief explanation of nuclear energy, and emphasized the importance of the general medical doctor having a knowledge of atomic energy in order to treat cases which will be exposed to radiation when it assumes a peacetime use. In human cases studied at Hiroshima, apparently four stages of injury were produced, namely, thermal burns, radiation burns of the skin, and radiation burns with subsequent loss of hair, and finally, terminal infection resulting from agranulocytosis. Dr. Warren was of the opinion that the human cases cared for by Japanese physicians were inadequately treated. He showed numerous lantern slides illustrating the clinical condition of patients and the physical effect on the country. He listed four chief problems at present in our dealing with atomic energy: first, an adequate means of detection of the presence of ionizable radiation in the atmosphere; second, methods of diagnosis, and the effect on the patient; third, therapy, with special attention to radiation sickness; and lastly, the problem of instituting some change in human relationships. The discussion of the paper was opened by members of the Physics, Chemistry, and Biology Department of Bowdoin College.

JOSEPH E. PORTER, M. D.,
Secretary.

Hancock

A regular meeting of the Hancock County Medical Society was held at the Hancock House, Ellsworth, Maine, on Wednesday evening, November 6, 1946.

Douglas Damrosch, M. D., of The Babies Hospital, New York City, read a paper on "Rubella and Congenital Anomalies."

Following the presentation of the paper there was a general discussion period.

J. H. CROWE, M. D.,
Secretary.

Oxford

The Annual Meeting of the Oxford County Medical Society was held at the Bethel Inn, Bethel, Maine, October 9, 1946.

The meeting was called to order by the President, Dr. H. W. Stanwood. Minutes of the preceding meeting were read and accepted.

Helene M. Reeves, M. D., of South Paris, was elected to membership in the Society.

The annual report of the Secretary-Treasurer was read and referred to the Councilors, who reported the books and accounts to be correct.

Due to the condition of his health Dr. James S. Sturtevant, Secretary-Treasurer for the past seventeen years, requested the Nominating Committee, appointed by the President to draw up a slate of Officers for the ensuing year, not to use his name.

The following officers were elected:

President: Dr. Walter G. Dixon, Norway.

Vice-President: Dr. Willard H. Boynton, Bethel.

Secretary-Treasurer: Dr. Dexter E. Elsemore, Dixfield.

Councilors: Dr. Lester Adams (1 year), Dr. H. Louella Noyes (2 years), Dr. J. A. Villa (3 years).

Delegates to the Maine Medical Association: Dr. Delbert M. Stewart, South Paris (1 year), Dr. Lester Adams, Hebron (2 years). Alternates: Dr. G. G. Defoe, Dixfield (1 year), Dr. H. M. Howard, Rumford (2 years).

Dr. MacDougall stated that a great deal of credit was due to Dr. Sturtevant for the efficient manner in which he has conducted the office of Secretary-Treasurer, and he was sustained by a rising vote by all present.

The members were pleased to have Dr. Frederick R. Carter, of Portland, Secretary-Treasurer of the Maine Medical Association, and Drs. W. E. Webber and W. P. Webber of Lewiston, as visitors at the business meeting.

Dr. Carter stated that W. Mayo Payson, of Portland, has been appointed Executive Secretary of the State Association.

Dr. W. E. Webber spoke about Compulsory Insurance, the Wagner Bill, and Socialized Medicine.

A very fine dinner was served at 7.00 P. M.

The speaker of the evening was Dr. John O. Piper, of Waterville, President of the Maine Medical Association. He reviewed questions which are currently being studied by the Council of the State Association. There was considerable discussion after which it was voted to inform our District Councilor that the Oxford County Medical Society would be in favor of the Maine Medical Association sponsoring a campaign to acquaint the public with the value of a health insurance, but that the Society would *not favor* entering into a contract with any insurance company whereby medical fees would be paid on a percentage basis.

Thirty-two members and guests were present.

J. S. STURTEVANT, M. D.,
Secretary.

Penobscot

A regular meeting of the Penobscot County Medical Association was held at Bangor, Maine, on Tuesday, October 15, 1946.

From 9.00 A. M. to 12.00 noon general ward rounds were held at the Eastern Maine General Hospital.

From 2.00 to 5.00 P. M. clinical discussions were held and papers presented at the hospital. Dr. John C. Leonard, Associate Director of the Pratt Diagnostic Hospital in Boston, discussed "Hypertension."

In the evening, following dinner at the Bangor House, routine business was transacted.

The paper of the evening was given by George P. Whitelaw, M. D., Associate Surgeon at the Massachusetts Memorial Hospital, Boston. His subject was, "Surgical Approach to Hypertension."

The attendance was 60.

FORREST B. AMES, M. D.,
Secretary.

The Penobscot County Medical Association held its annual meeting on Tuesday, November 19, 1946, at Bangor, Maine. Following dinner at the Bangor House, at 7.00 P. M., the following business was transacted:

Reports of the Secretary-Treasurer, Forrest B. Ames, M. D., were read, approved and ordered placed on the records. The Secretary reported the addition of eight members during the past year. Two members were lost by transfer; Max E. Wittee, M. D., moved to Portland, and H. E. Libby, M. D., moved to Gardi-

ner. One death was recorded: C. H. Bayard, M. D., of Orono. Present membership was recorded as 90.

Eight regular and two special meetings were held between November, 1945, and November, 1946. Average attendance increased from 38 the previous year to 50 during the past year.

Elected to membership were: Paul W. Burke, M. D., Newport; Robert C. Cornell, M. D., Orono; Joseph F. Dinan, M. D., Bangor; and Donald F. Macdonald, M. D., Bangor.

A nominating committee composed of E. T. Young, M. D., M. C. Moulton, M. D., and S. S. Silsby, M. D., presented the following slate of officers for 1947:

President, Edward L. Herlihy, M. D., Bangor.

Vice-President, Martin C. Maddan, M. D., Old Town.

Secretary-Treasurer, John E. Smith, M. D., Bangor.

Board of Censors for three years, J. R. Feeley, M. D., Bangor.

Delegate to the Maine Medical Association for three years, George B. Weatherbee, M. D., Hampden Highlands. Alternate, William A. Purinton, M. D., Bangor.

The report was accepted and the above duly elected.

The speaker of the evening was George W. Holmes, M. D., formerly Professor of Roentgenology at Harvard Medical School.

Subject: "Obstructive Lesions of the Bronchi."

The attendance was 70.

FORREST B. AMES, M. D.,
Secretary.

Washington

A meeting of the Washington County Medical Society was held at the St. Croix Hotel, Calais, Maine, on October 31, 1946. Dinner was served at 6.30 P. M.

In the absence of the President, Dr. Walter N. Miner was voted Chairman of the meeting.

Hazen Mitchell, M. D., of Calais, was elected to membership in the Society.

A round table discussion followed the business meeting. The Society went on record as opposed to the Wagner-Murray-Dingell Bill, and was favorably inclined toward such plans as the Blue Cross and Blue Shield. Each doctor present then presented cases of interest to the members for discussion.

Eleven members were present.

ALLEN H. KNAPP, M. D.,
Secretary pro tem.

New Members

Aroostook

Ray A. Proctor, M. D., Caribou, Maine.

Arthur P. Reynolds, M. D., Presque Isle, Maine.

Knox

Robert L. Allen, M. D., Rockland, Maine.

David V. Mann, M. D., Camden, Maine.

Oxford

Helene M. Reeves, M. D., South Paris, Maine.

Penobscot

Paul W. Burke, M. D., Newport, Maine.

Robert C. Cornell, M. D., Orono, Maine.

Joseph F. Dinan, M. D., Bangor, Maine.

Donald F. Macdonald, M. D., Bangor, Maine.

Washington

Hazen Mitchell, M. D., Calais, Maine.

Necrologies

George R. Love, M. D., 1869-1946

George R. Love, M. D., 77, a practicing physician in Saco, Maine, for twenty-five years, died October 4, 1946, following a long illness.

Dr. Love was born in Plainfield, Ohio, January 21, 1869, son of Joseph and Margaret Love. He attended Ohio State University and received his medical degree from Starling Medical College, Columbus, Ohio, in 1897. He was superintendent at the Toledo (Ohio) State Hospital for many years before locating in Saco.

Dr. Love was a member of the York County Medical Society, the Maine Medical Association and the

American Medical Association. He served as York County medical examiner for several years, resigning a year ago because of ill health.

He was a former Mayor of Saco, a member of the Masonic Lodge, Chapter, Council, Commandery and Shriners of Toledo, a member of the Biddeford and Saco Rotary Club, and attended the Second Parish Unitarian Church.

Surviving are his widow, Helen Deering Love; a son, George D. Love, and two grandchildren, all of Saco.

George A. Gregory, M. D., 1865-1946

George A. Gregory, M. D., 81, a practicing physician in Boothbay Harbor, Maine, for 55 years, died December 1, 1946, after a year of failing health.

Dr. Gregory was born in Shelburne, N. S., May 4, 1865, son of John and Sarah Ann Gregory. He attended Shelburne Academy, N. S., Dalhousie University, Halifax, N. S., and received his medical degree from Bowdoin Medical College in 1891.

He became particularly interested in surgery and successfully performed major operations under difficult conditions in private homes in the earlier years of practice. Seeing the need of a hospital he built and established St. Andrews Hospital, Boothbay Harbor, in 1908. He was Chief of Staff until his death. He was a member of Lincoln-Sagadahoc County Medical Society, Maine Medical Society, American Medical Association, State Medical Legal Association, Association Military Surgeons of U. S. A., Fellow of American College of Surgeons. He was Lincoln County medical examiner for a great many years. He received a 50-year gold medal from Maine Medical Association in 1941.

Dr. Gregory served his community long and well in his professional capacity, a counselor and friend as well as physician to his patients, a tower of strength in the sickroom, a genial presence in the home. All phases of the welfare of his town engaged his active interest. He was a member of the Governor's Council in 1919-1921; served on the school board of Boothbay Harbor for 6 years; a director of the Depositors Trust Co., Boothbay Harbor; member of Seaside Lodge, F. and A. M.; Past High Priest, Pentecost Chapter, No. 55, Royal Arch Masons; Knight Templar; 32nd degree Mason; Honorary member, Boothbay Harbor Rotary Club; prominent in the affairs of the Republican party; Protestant.

Surviving are his widow, Mrs. Elizabeth Richer Gregory; two sons, Dr. Philip O. Gregory of Boothbay Harbor and George A. Gregory, Jr., a pre-medical student; two daughters, Miss Selma L. Gregory of Rochester, New York, and Mrs. Marjorie L. Rubinger of Mt. Vernon, New York; five grandchildren, Nancy, Marjorie and Philip Gregory, Jr., Richard and Michael Rubinger.

News and Notices

Portland Medical Calendar for December, 1946

MONDAY

Gynecological Grand Rounds,	8.00 A. M.
Prenatal Clinic,	8.30 A. M.
Gynecological Clinic,	10.00 A. M.
*Medical Clinic,	11.00 A. M.
Surgical Clinic,	3.00 P. M.
†Orthopedic Out-patient Clinic,	3.00 P. M.
Medical Staff Conference (2nd Monday),	8.00 P. M.

TUESDAY

Gynecological Service Operating,	8.00 A. M.
Ear, Nose and Throat Service Operating,	8.00 A. M.
Surgical Conference,	8.00 A. M.
Pediatric Conference (2nd and 4th Tuesdays),	8.30 A. M.
Surgical Grand Rounds,	9.00 A. M.
Orthopedic Grand Rounds,	10.00 A. M.
Surgical Diagnostic Clinic,	10.30 A. M.
Orthopedic Conference,	11.00 A. M.
Adult Cardiac Clinic,	11.00 A. M.
*Genito-urinary Out-patient Clinic,	11.30 A. M.
Resident Staff Conference,	1.00 P. M.
Surgical Clinic,	3.00 P. M.
†Orthopedic Out-patient Clinic,	3.00 P. M.
Staff Meeting, Maine Eye and Ear Infirmary (1st Tuesday),	7.00 P. M.
Portland Medical Club (1st Tuesday),	8.15 P. M.

WEDNESDAY

Diabetic Clinic,	11.00 A. M.
Genito-urinary Grand Rounds,	11.00 A. M.
Genito-urinary Conference,	12.00 noon
Clinical Pathological Conference (X-ray Conference, December 11),	1.00 P. M.
Surgical Clinic,	3.00 P. M.

THURSDAY

Medical Grand Rounds,	8.00 A. M.
†Pediatric Grand Rounds,	9.00 A. M.
Orthopedic Clinic (All Day),	9.00 A. M.
Tumor Clinic,	10.00 A. M.
Gynecological Grand Rounds,	11.00 A. M.
*Medical Clinic,	11.00 A. M.
*Gynecological Out-patient Clinic,	11.30 A. M.
Surgical Clinic,	3.00 P. M.
Neurosurgical Clinic (1st and 3rd Thursday),	3.00 P. M.
†Orthopedic Clinic,	3.00 P. M.
Gynecological Conference (1st and 3rd Thursday),	5.30 P. M.
Staff Meeting, Mercy Hospital (3rd Thursday),	6.30 P. M.

FRIDAY

Gynecological Service Operating,	8.00 A. M.
Ear, Nose and Throat Service Operating,	8.00 A. M.
Children's Cardiac Clinic,	10.00 A. M.
*Genito-urinary Clinic,	11.00 A. M.
*Medical Clinic,	11.00 A. M.
†Orthopedic Clinic,	3.00 P. M.
General Staff Meeting, Maine General Hospital,	5.00 P. M.
December 13, beginning with a Clinical Pathological Conference followed by dinner and an evening of scientific papers and case reports.	
Cumberland County Medical Society, December 20 at Maine Eye and Ear Infirmary.	5.00 P. M.

* At India Street Dispensary.

† At Children's Hospital.

Unless otherwise designated, all meetings are at the Maine General Hospital.

Committee on Graduate Education

Panels Available for Programs of County Medical Associations

The Committee on Graduate Education has available for programs of County Medical Associations the following panels:—

"Diagnosis and Treatment of Accessible Cancer." Chairman—Dr. J. E. Porter, Maine General Hospital, Portland.

"Coronary Disease." Chairman—Dr. W. J. Comeau, Eastern Maine General Hospital, Bangor.

"Thoracic Injuries." Chairman—Dr. George E. Young, Redington Memorial Hospital, Skowhegan.

"The Acute Abdomen." Chairman—Dr. William V. Cox, Central Maine General Hospital, Lewiston.

"Renal Disease." Chairman—Dr. Eugene H. Drake, Maine General Hospital, Portland.

"Deafness." Chairman—Dr. Frederick T. Hill, Thayer Hospital, Waterville.

These panels will be available, not only for the formal evening program but for an afternoon clinic as well, if this is desired. County officers should contact the chairman of the desired panel direct and sufficiently in advance of the meeting to allow scheduling.

FREDERICK T. HILL, M. D., *Chairman,*
Committee on Graduate Education.

S. Judd Beach, M. D., of Portland, was elected President of the Portland Medical Club at its annual meeting held Tuesday evening, December 2, 1946.

Wilbur F. Leighton, M. D., of Portland, has been appointed a Medical Examiner for Cumberland County by Governor Horace A. Hildreth.

Wilfred J. Comeau, M. D., of Bangor, has been appointed Consultant in Cardiology and Internal Medicine in the Department of Medicine and Surgery of the Veterans Administration Togus, Maine.

Fellowship in the American Medical Association

The American Medical Association is going to celebrate its centennial in Atlantic City, June 9-13, 1947. Elaborate plans are being made for this celebration.

Only Fellows and Invited Guests are eligible to attend. Membership in your state society is the primary qualification for Fellowship in the A. M. A. Fellowship dues and subscription to THE JOURNAL A. M. A. are both included in one annual payment of \$8.00, which is the cost of THE JOURNAL to subscribers who are not Fellows.

If you are not a Fellow and plan to attend the Atlantic City session, which will be a milestone in medical history, you can save yourself considerable time and confusion when registering, if you will write now to the American Medical Association, 535 North Dearborn Street, Chicago 10, and ask if you are eligible to become a Fellow.

The 1946 Tuberculosis Seal Sale Campaign

The 40th Annual Tuberculosis Seal to be sold in this country will feature "The Lamplighter." The Seal symbolizes the age old darkness of disease and despair lightened by modern methods of treating Tuberculosis. Two people collaborated in this year's Seal—a girl training for Medical Social Service, Mary Louise Estes of St. Augustine, Fla., who furnished the idea and Lloyd Coe, an artist of Cape Ann, Mass., who designed the Seal.

The sale this year opens November 25, the Monday before Thanksgiving. Dr. Kendall Emerson, Managing Director of the National Tuberculosis Association, in a letter to all affiliated Tuberculosis Associations, has announced the theme for this year's Campaign as follows:

"Every gardener who works with a hoe knows that scratching the soil will cut off the weed tops and leave the garden neat in appearance. He appears to have the weeds under control. But he also knows that the roots remain and new shoots will soon start to choke his crops. The wise gardener does deep cultivation and extracts roots and all. Here lies the difference between control and eradication. The tubercle bacillus is a noxious weed that flourishes in the garden of humanity.

No apology for our program of tuberculosis control is necessary. Our failing mortality even in the bitter

years of war has been the envy of other nations. Subsoil ploughing, deeper cultivation, that is the immediate need, to discover not more but all minimal cases before they have infected others. Weeds uprooted do not propagate.

The theme for the 40th Annual Christmas Seal Sale is the eradication of tuberculosis.

Faithfully yours,
(Signed) KENDALL EMERSON, M. D.,
Managing Director."

The 1945 Campaign made possible a fund which has been made available to interested hospitals to X-ray Hospital Admittances, hoping thereby to find another source of hidden cases.

The Cumberland County Public Health Association has budgeted \$6,000.00 each for two hospitals in Portland, the Maine General and Mercy Hospital.

The Augusta Tuberculosis Prevention Service has offered to pay for X-raying of Hospital Admittances to the Augusta General Hospital for one year.

The Maine Public Health Association has set aside \$4,000.00 to pay for necessary X-ray equipment for the Eastern Maine General Hospital in Bangor and also has offered to subsidize cost of X-rays for the Thayer Hospital at Waterville and the Redington Memorial Hospital in Skowhegan.

HOSPITAL STAFF MEETINGS
Open to the Profession

CITY	HOSPITAL	DATE
Augusta	Augusta General Hospital	1st Wednesday
Bangor	Eastern Maine General	2nd Tuesday
Bath	Bath Memorial Hospital	1st Tuesday
Belfast	Waldo County	2nd Friday
Boothbay Harbor	St. Andrew's Hospital	4th Tuesday
Caribou	Cary Memorial	1st Wednesday
Damariscotta	Miles Memorial	1st Thursday
Greenville	Charles Dean Hospital	2nd Wednesday
Lewiston	Central Maine General	1st Monday
	St. Mary's General	2nd Monday
Portland	Maine Eye and Ear Infirmary	1st Wednesday
	Maine General	2nd Friday
	Mercy	3rd Thursday
Presque Isle	Presque Isle General	1st and 3rd Tuesdays
Rockland	Knox County General	1st Monday
Rumford	Rumford Community	4th Wednesday
Sanford	Goodall Memorial	2nd Monday
Waterville	Sisters	2nd Tuesday
	Thayer	Every Thursday

The above list was compiled from a questionnaire sent out by the Maine Hospital Association. Additions or corrections will be made on notification to the Secretary, Maine Hospital Association, Thayer Hospital, Waterville.

Book Reviews

New and Non-official Remedies, 1946, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1946. Cloth. Price, postpaid, \$1.50. Pp. 770. Chicago: American Medical Association, 1946.

New and Non-official Remedies is the book in which are listed and described the medicinal preparations which the Council on Pharmacy and Chemistry has found acceptable, under its rules, for the use of physicians. To have a product accepted, the manufacturer must declare its composition, give adequate proof of its therapeutic value and market it with claims which have been found valid by the Council. The present volume represents a cumulative epitome of the Council's work since its foundation in 1905.

Accepted preparations are grouped in twenty-four classifications ranging from Allergenic Preparations to Vitamins. Ordinarily, an inclusive general article precedes the description of the various products. The monograph for the products set forth the actions, uses and dosage and usually a set of tests and standards. As its name implies, the book is intended to describe non-official preparations, that is preparations which are not included in such official publications as the *Pharmacopeia* and the *National Formulary*. However, some official articles are listed and described, these being in general those for which the Council feels the practicing physician needs concise and authoritative information. In the preface of the present volume, the Council lists some thirty-five official drugs ranging from acetylsalicylic acid to Strophanthin, which the Council feels it no longer necessary to consider for inclusion in the book. However, in most cases, a brief monograph on actions, uses and dosage gives information useful to the physician and for the control and advertising of marketed preparations.

Examination of the volume reveals that there have been no extensive or radical revisions of the general articles representing the twenty-four chapter heads under which preparations are classified. A few revisions of separate monographs may be mentioned: under Chaulmoogra Derivatives, the recommended use of Chaulmoogra Oil is limited to sarcoidosis; the dosage statement for Quinacrine Hydrochloride has been notably expanded to reflect the war-time experience with the drug. The radically revised monograph on Amphetamine is in harmony with the recent Council report on the use of this drug. Minor revisions of the chapter on Contraceptives are noted, and one marks the appearance of many additional products. The monograph on the Vitamin B Complex now men-

tions synthetic folic acid, recently made available for investigational use; but no accepted preparations are listed.

There appear to be no spectacularly new accepted preparations. Perhaps the most noteworthy is the casein hydrolysate, Amigen, acceptance of which will no doubt be followed by that of many more preparations representing the field of amino acid therapy.

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1945. Cloth. Price, postpaid, \$1.00. Pp. 122. Chicago: American Medical Association, 1946.

Originally intended chiefly as a repository of its reports on rejection of preparations found unacceptable for inclusion in New and Non-official Remedies or of status reports on products whose therapeutic value has not yet been established, this volume in recent years has been composed mainly of reports giving general information to the physician on the status of various therapeutic agents and therapeutic procedures. Most of these reports have previously been published in *The Journal of the A. M. A.* The reports in the present volume emphasize the educational nature of the Council's work and bear witness to its leadership in the consideration of current therapeutic problems.

The report "Dermatophytosis: Treatment and Prophylaxis," gives a concise estimate of progress in this field and sets up useful standards for the evaluation of fungicidal preparations. The report on "Dangers from the External Use of Sulfonamides," obviously stems from war time experience with these preparations and issues a warning against over-the-counter sales. The report "Status of Poison Ivy Extracts" emphasizes the fact that these preparations are to be used in prevention rather than treatment. The report on Acne Bacillus Vaccine points out that this preparation, in the opinion of most investigators, fails in most cases clinically to arrest or control acne vulgaris. In the report "The Status of Passive Immunization and Treatment in Pertussis by the Use of Human Hyperimmune Serum" prepared by Dr. Harriet M. Felton and sponsored by the Council, the status of these preparations was definitively outlined just prior to the acceptance by the Council of a number of commercial preparations.

This volume as well as preceding Annual Reprints are of interest not only to physicians but also to pharmacists, chemists and pharmaceutical manufacturers, in fact to all who are interested in the progress of drug therapy.

Proceedings

NINETY - SECOND ANNUAL SESSION

Maine Medical Association

POLAND SPRING, MAINE

June 23, 24, 25, 1946

FIRST MEETING, HOUSE OF DELEGATES

(Continued from the November Issue, Page 302)

DR. THOMAS C. MCCOY of Augusta: In order to clarify the situation in regard to increasing the dues of this Association, I move that one member from each County Society be asked to say exactly what his Society has done in regard to the matter. I think that we have all been instructed to vote for the \$35.00 figure. If that is a fact, then there is no use talking about \$25.00.

CHAIRMAN PIPER: I think that is perfectly all right.

DR. PLUMMER: This discussion would seem to be out of order at this time, inasmuch as the matter is coming up again tomorrow afternoon.

CHAIRMAN PIPER: You are perfectly right, Doctor. That is the idea of this Reference Committee. There will probably be two or three men here before the thing is over who will want to express an opinion, and the Chair wants to get permission to have this Reference Committee hear the consensus of opinion of the whole Association; not just the delegates present. Now, if we tried to discuss it with 200 or 300 men here, and tried to vote on it, I think it would be rather a hard job, and I think that the matter of \$35.00 or \$25.00 is immaterial. If you want to vote \$100.00, it would be very acceptable. That is the way I look at it.

This Reference Committee is just a Committee to give the Delegates an opportunity to express their opinions; then tomorrow they bring those opinions in to the meeting and let us have them; then, you can vote as you see fit on each one of these matters when they are taken up tomorrow afternoon.

DR. CLYDE I. SWETT of Island Falls: Mr. Chairman, I think there are two issues here; one is that the House of Delegates is being asked to refer a matter to a Reference Committee to decide the opinions of two or three men, to iron out the difficulties that are presumed to be present, and then bring them before the House of Delegates for a vote. I think the thing the Chair is overlooking is the fact that this thing has already been brought before the 200 or 300 members of the Association, and it has been discussed thoroughly at county meetings. As a result of such discussion, two or more delegates, through votes in the county societies, have been instructed by their county societies to vote for a certain thing, Reference Committee or no Reference Committee, opinions or no opinions; these delegates, if they are going to be true to their constituents, have got to vote in one way.

Therefore, it seems to me that you are putting the Reference Committee in a very embarrassing position, to say the least, and the House of Delegates is also being put in an embarrassing position of trying to add other outside influence in the matter.

I should like to take the matter off the table, and recommend that the matter of the increased dues be brought before the House of Delegates at this time.

A MEMBER: I will second that motion.

DR. PLUMMER: If it is proper here, I should like to say this. At the meeting of the Androscoggin County Association, called for this purpose, it was voted to leave the delegates to use their own judgment. No instructions were issued one way or the other. I don't know in how many counties that same thing happened. So I would say at this time that probably it is not proper to take a poll.

Let us assume, for the purpose of illustration, that half of the delegates who have come here were uninstructed, and were asked to use their own judgment about how they would vote. They, perhaps, would like to wait.

Personally, I am an alternate, but I am just filling in, in the absence of some one. Now, what will be the situation tomorrow afternoon, I have no way of knowing. But I think that doubtless many would like to have the matter discussed, and looked into a little bit more, in order to come to a proper decision.

Furthermore, I judge perhaps not all the delegates are here. There may be some who will be here tomorrow afternoon, who are instructed one way or the other. There may be some here, who have had no instructions and who would like to listen to any arguments that may be presented.

It strikes me, Mr. Chairman, that it is hardly proper at this time and on a matter of this importance, and in view of all the circumstances, to put the matter to a vote.

DR. JAMESON: It seems to me that it is premature to vote on the matter of increasing dues, which is contingent upon whether or not we are going to increase our Budget by the appointment of a full-time Executive Secretary.

DR. SMITH: Cumberland County was uninstructed. We are open to argument. I should like to see this matter go over until tomorrow, and hear it talked about. I do not believe that every county is instructed.

DR. YOUNG: I feel the same way about it.

DR. KINGHORN: I think the motion is out of order, because we should first vote on whether we are going to have an Executive Secretary or not. That is what the dues are being raised for. If we don't vote for that first, we will get the cart ahead of the horse.

DR. LEIGHTON: That is right.

DR. SWETT: I will withdraw the motion.

CHAIRMAN PIPER: As it stands, then, this matter will be taken up with the Reference Committee, and it will be fully discussed in the House of Delegates' meeting tomorrow afternoon, and you can all vote as you like.

Before we adjourn, I want to make an announcement that the House of Delegates, on Monday, will have to elect a Delegate to the A. M. A., and Councilors to the Fifth and Sixth Districts, respectively.

PRESIDENT LEIGHTON: I might say that tonight is to be Veterans' Night. This is something which we

have gotten up with the distinct idea that we should give a little homage to those who have been in the armed forces for the last four or five years. I want to say that we have arranged a little program, which I trust will be of interest.

Please take a veteran under your wing and come to Room 116 or 118, where we have a sufficient supply of the necessities on hand!

CHAIRMAN PIPER: If there is no further business to come before the meeting, I will now declare this session of the House of Delegates adjourned.

[Whereupon, the First Session of the House of Delegates was adjourned at 5.20 o'clock in the afternoon.]

SECOND MEETING, HOUSE OF DELEGATES

The second meeting of the House of Delegates convened at the Poland Spring House, Poland Spring, Maine, Monday, June 24, 1946, at 4.45 o'clock in the afternoon, with President-Elect, John O. Piper, presiding.

CHAIRMAN PIPER: The Second Meeting of the House of Delegates will please come to order. We will first have the roll call by the Secretary.

[The roll call by the Secretary, Dr. Frederick R. Carter, revealed a quorum present.]

CHAIRMAN PIPER: Our first business of the afternoon is the Report of the Nominating Committee, of which Dr. Kershner is Chairman.

SECRETARY CARTER: Mr. President, Dr. Kershner is unable to attend this meeting, and he asked me if I would read the slate.

[Secretary Carter then read the report of the Nominating Committee which was published in the July issue of THE JOURNAL, page 198.]

CHAIRMAN PIPER: You have heard the report of the Nominating Committee. What is your pleasure?

DR. SWETT: I move that the Secretary cast one ballot for the slate as presented by the Nominating Committee.

This motion was duly seconded and was carried.

CHAIRMAN PIPER: Our next order of business is the election of a Delegate to the American Medical Association.

DR. AMES: Mr. Chairman, I should like to nominate Dr. Thomas A. Foster for that position, for two years.

This motion was duly seconded by Dr. Ebbett and others present and was carried.

CHAIRMAN PIPER: Next, we shall proceed to the election of a Councilor from the Fifth District, consisting of Hancock and Washington Counties.

DR. MINOT: It gives me much pleasure to nominate Norman E. Cobb, a soldier who has spent three or four years in the Pacific, a man of activity, a fighter, having the State of Maine always before him.

This nomination was duly seconded and was carried.

CHAIRMAN PIPER: And I declare Dr. Norman E. Cobb elected as Councilor from the Fifth District. We shall now elect a Councilor from the Sixth District.

DR. P. L. B. EBBETT: I should like to present a name you are all familiar with, one, in fact, who has

just declined the nomination as President, Dr. Forrest B. Ames of Bangor.

This nomination was duly seconded and was carried.

CHAIRMAN PIPER: I declare Dr. Ames duly elected as Councilor from the Sixth District.

Yesterday, we did not get a report from the Councilor of the First District, Dr. Waldron L. Morse. Is Dr. Morse present? [There was no response.]

Next is the report of the Amy W. Pinkham Fund Committee by Dr. Thomas Foster.

DR. FOSTER: Mr. President, may I review the Amy W. Pinkham Fund history? The sum of \$20,000 was left to some agency in the State of Maine, for the use of undernourished and tuberculous children. The will was probated in Cumberland County, and the Judge of Probate allocated the money to the Maine Health Society, as it was then called, with Mr. Albert Stearns as the President of that Society, with the provision that no money should be spent from this fund without the approval of a Committee appointed by the Maine Medical Association.

Up to date, no money has been spent from the fund. The Committee has not met and they have not established a policy for spending the income from this fund for undernourished or tuberculous children.

During the past year, the income from the fund of \$20,000, \$10,000 of which is invested in United States Treasury Series G Savings Bonds at 2½ per cent, and \$10,000 of which is invested in United States Treasury 2½ bonds, due in 1967 and 1972 respectively, was \$598.36. Also, because of an exchange in bonds, the Trust made a profit of \$218.75, making, therefore, for the year an income of \$817.16, which has been deposited in addition to the income from the previous years.

Tomorrow noon at 12 o'clock, the Committee on Tuberculosis will have a luncheon meeting, under the leadership of Dr. Welch, at which time it is hoped that the Committee may establish some policy in regard to taking care of the undernourished and tuberculous children of the State.

CHAIRMAN PIPER: Thank you, Dr. Foster. The next item of unfinished business is the recommendation by your Council that a study of prepaid medical care plans be continued by a Committee to be appointed by the President, and that this Committee be authorized to take steps necessary to secure an enabling act which would empower the Maine Medical Association to adopt a representative insurance plan, when such can be formulated.

What is your pleasure in that regard?

DR. SMITH: I move that this recommendation be accepted.

A MEMBER: I will second that motion.

* * * * *

CHAIRMAN PIPER: All those who are in favor of the motion will please signify by saying "aye."

There was a chorus of "ayes" and the motion was carried.

CHAIRMAN PIPER: The next recommendation by the Council which we are to consider is that the House of Delegates go on record as being in favor of the establishment of a medical school in Maine, as soon as it is



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feasible, and that a Committee be named by the President to carry on further plans.

DR. VICKERS: I move the adoption of that recommendation.

This motion was duly seconded and was carried.

CHAIRMAN PIPER: The next recommendation is that the House of Delegates of the Maine Medical Association express approval of the National Physicians' Committee, in opposition to the passage of any Federal legislation which would bring about governmental control of the practice of medicine.

DR. RICHARDS: I move that we adopt that recommendation.

This motion was duly seconded and was carried.

DR. PLUMMER: I fancy there may be members of this Association who may be somewhat in favor of the efforts to carry through some kind of plan, such as is under consideration. That being the case, I personally say that I am opposed to it, along with the rest of it. On the other hand, I question the advisability of our adopting it as an official body. The A. M. A. has taken no position on this.

VOICES: They have.

DR. PLUMMER: Then I will change my statement. I object to this body taking a position of endorsement. I rather regret, without casting any reflections or incriminations, that our Delegate to the A. M. A. should have permitted it to go through except over his remonstrance.

DR. THOMAS FOSTER: Mr. President, it went through with a good deal of support. The question arose, as expressed by Dr. Plummer, that it might be unwise for a scientific body like the A. M. A. to give its blessing to a somewhat economic and political body like the National Physicians' Committee. However, the issue was debated frankly, freely and openly, and it was felt that if the physicians were going to support the National Physicians' Committee, that the A. M. A. ought to support it and give it its blessing. Therefore, they frankly, I won't say unanimously, but whole-heartedly approved a resolution, supporting that committee. It means a good deal to the National Physicians' Committee to have the support of organized medicine. It was concluded that there was no danger in making that support official.

DR. SMITH: Mr. Chairman, we have a lot of business to transact here, and I move that only two minutes be allowed to any speaker on any one subject.

This motion was duly seconded and was carried.

CHAIRMAN PIPER: The next recommendation is with reference to the employment of a full-time Executive Secretary, that a full-time Executive Secretary be authorized. Perhaps it is not necessary to authorize that, because it is right here in our by-laws, that the

Council may employ an Executive Secretary and he need not be a physician or a member of the Association. So I think that would take care of that matter, without bringing it to a vote.

The next recommendation is that the emergency agreement between the Council and the Associated Hospital Service, Inc., of Maine, be held in abeyance, until further conferences can be had between the Veterans' Affairs Committee of the Maine Medical Association, the proper officials of the Veterans' Administration, and the Associated Hospital Service, Inc., of Maine. It is understood that any new agreement will give proper representation and authority to the Maine Medical Association.

Now, what that means is that there was some sort of agreement signed by the President and the Secretary sometime ago, with Dr. Webb, which is not satisfactory, and it is thought best to hold this in abeyance, until it can be further considered by a committee appointed for that purpose. What is your pleasure in this matter?

DR. MINOT: I move that this recommendation be accepted.

This motion was duly seconded and was carried.

CHAIRMAN PIPER: I shall nominate this Committee: Edward H. Risley, Harold Pressey, Francis A. Winch- enbach, Currier C. Weymouth, Philip Gregory, and Elton R. Blaisdell.

At this time, I am going to call upon Wilbur F. Leighton, Chairman of the Reference Committee, for a report.

DR. LEIGHTON: I would prefer that Dr. McCoy make that report.

DR. MCCOY: Mr. President and members of the House of Delegates. The budget estimated by your Council at the present time stands at \$17,671.87. The present dues of the Maine Medical Association for the State are \$12.00 per year, and on the predicated membership of 700, at \$12.00 a year, we shall have a revenue of \$8,400.00 definitely. It has been proposed by the Council that we raise the dues to \$25.00 per year. At this figure, with 700 members, we would take in \$17,500.00, and that would leave us a deficit of \$171.87. With 700 members at \$35.00 each, it would give us \$24,500.00, with a surplus of \$6,828.13.

It is expected that in the raising of the dues to any extent, we will lose a certain number of members. Therefore, we have taken a rather impossible figure and called our membership for the coming year, 600. Let us say that we are going to lose 100 members, which we won't. Then, at \$25.00, our revenue would be \$15,000.00, and we would have a deficit of \$2,671.87. Taking 600 members at \$35.00, our revenue would be \$21,000.00, and we will have a surplus of \$3,328.13.

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QUESTION: May I ask the Doctor how much the Reference Committee has considered as an appropriation for payment of this Executive Secretary?

DR. MCCOY: It has been set forth in the Budget by the Council that the estimated cost of employing a full-time Executive Secretary will be \$10,271.87.

DR. VICKERS: As a member of the Penobscot County Medical Society, I am delegated here to vote for dues of \$35.00 per year.

I move that the delegates vote to increase the dues of the Maine Medical Association to \$35.00 per year.

[The motion was duly seconded by several of the members present.]

CHAIRMAN PIPER: You have heard the motion, Gentlemen. Is there any discussion?

DR. EBBETT: I should like to ask one question. Does this \$35.00 go to the State Association, or would a part of that be taken for the County Societies, as we do now? At present in our Society, we raise \$15.00, and \$12.00 of it is sent to the State; we keep \$3.00.

Now, in some of the counties, I believe they raise \$14.00 and keep \$2.00.

My question is this. Would the \$35.00 include the dues of the county societies or not? This point was brought up, but Dr. Ames couldn't answer the question, nor could Dr. Herlihy.

DR. MCCOY: Mr. President, the figures are predicated on \$35.00 to the Maine Medical Association,

which would mean that the dues would have to be \$35.00, plus the county dues.

CHAIRMAN PIPER: Dr. Carter has just suggested the thought that the State dues should be stipulated as so much and the county societies make their own figure.

DR. KINGHORN: Some of the county societies have a figure of \$1.00, some \$2.00 and some \$3.00. How are you doing to stipulate a certain amount for the county societies?

DR. VICKERS: I will withdraw my original motion and move that the State dues be \$35.00 for everybody, and let the counties charge what they desire.

This motion was duly seconded, and on a roll-call vote, was unanimously carried.

CHAIRMAN PIPER: By your unanimous vote, you have raised the dues of the Maine Medical Association to \$35.00 per year.

Is Dr. Joseph Porter here with a report as Delegate to the Rhode Island Medical Society? [There was no response.]

If there is no further business to come before the meeting, a motion is in order to adjourn.

DR. VICKERS: I move that we adjourn.

This motion was duly seconded and was carried.

[Whereupon, the Second Meeting of the House of Delegates was adjourned at five-fifteen o'clock in the afternoon.]

Diseases of the Colon—Continued from page 313

technic or the Young or Clute clamps are effective aids to aseptic resection.

Preliminary cecostomy, preferably under local anesthesia, is *demanded* in cases with any degree of obstruction, before undertaking resection. Six to seven days after cecostomy resection can be safely carried out. This method also gives a number of added days in which to carry out other necessary details of preparation so important to so many of these cases. We feel that preliminary cecostomy cannot be too strongly emphasized as a proceeding of greatest value in all cases with any degree of obstruction.

In right-sided growths most surgeons prefer a two-stage procedure; an ileo-transverse colostomy, followed in 6 to 8 days by resection of the ileal stump, ascending and transverse colon up to within about 2 inches of the ileo-colostomy. We have used this procedure in five consecutive cases with excellent results. Three other inoperable cases were relieved of their obstruction and pain by the ileo-colostomy alone.

Collar and his associates have shown that the lymphatic spread from growths in the cecum, ascending colon, hepatic flexure and right transverse colon may develop in a retrograde manner and involve the ileo-cecal angle, making it necessary to carry out an extensive ex-

cision from the lower ileum to mid-transverse colon in order to insure complete removal of the maximal area of nodal involvement.

The Lahey one-stage type of resection for right-sided growths, in which the stump of the ileum and severed colon are brought out through the incision, as in the Mickulitz procedure, has its advantages in certain poor risk patients, but it has the disadvantage of all exteriorizing procedures and possibly some restriction in the amount of colon it is possible to remove. This in light of Collar's statements regarding retrograde spread and the necessity of a very wide excision.

SUMMARY

The impression I would like to convey in this very brief review of progress in colonic surgery is that less dependence should be placed on drugs and more on pre-operative preparation and operative technic.

One cannot say that bacteriostatic drugs have not added to the safety of surgery of the colon, but along with their use has come a trend away from multiple stage procedures, a more critical preparation of the patient and the development of a more exacting operative technic. All of these factors taken together have resulted in a very definite improvement in the results of operations on the colon.

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THE JOURNAL
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Program
CLINICAL SESSION
MAINE MEDICAL ASSOCIATION

BANGOR, MAINE
DECEMBER 1ST AND 2ND, 1946

Clinics at the following Hospitals

Eastern Maine General Hospital
489 State Street

Bangor Sanatorium
Kenduskeag Avenue

Bangor State Hospital
State Street

Program Sponsored

by the

PENOBSCOT COUNTY MEDICAL ASSOCIATION

Committee on Arrangements

Edward L. Herlihy, M. D., Chairman

Forrest B. Ames, M. D., Secretary

(OVER)

Program

Sunday, December 1, 1946

6.30 P. M. Social evening, dinner and speaker.

Details to be announced.

Monday, December 2, 1946

Morning Session

EASTERN MAINE GENERAL HOSPITAL

9.00 A. M. to 12.00 Noon

Presentation of Papers

(Ward D)

Chairman, LEROY H. SMITH, M. D.

9.00 A. M.	Cancer of the Uterus.	Magnus F. Ridlon, M. D.
9.30 A. M.	Discussion of the R-H Factor in Obstetrics.	Clarence Emery, Jr., M. D.
10.00 A. M.	Care of Burns.	William A. Purinton, M. D.
11.00 A. M.	The Symptomatic Relief of Acute Asthmatic Attacks.	Martyn A. Vickers, M. D.
11.00 A. M.	Hashimoto's Disease.	Asa C. Adams, M. D.
11.30 A. M.	Propylthiuracil in the Treatment of Hyperthyroidism.	Lawrence M. Cutler, M. D.

Case Presentations

(Out-Patient Department)

Genito-Urinary Diseases.	Carl E. Blaisdell, M. D. Joseph Memmelaar, M. D.
Roentgenology.	Forrest B. Ames, M. D. Hugh A. Smith, M. D.
Laboratory.	Leon S. Lippincott, M. D. Richard C. Wadsworth, M. D.
Orthopedic.	Allan Woodcock, M. D. Peter S. Skinner, M. D. Samuel S. Silsby, M. D.
Eye, Ear, Nose and Throat.	Harry Butler, M. D. John E. Whitworth, M. D. Robert M. McQuoid, M. D. Manning C. Moulton, M. D. Jay K. Osler, M. D.

BANGOR SANATORIUM*

Tuberculosis

10.00 A. M. to 11.30 A. M.

Clinic by Walter R. Gumprecht, M. D.

1. The Evaluation of Home Versus Sanatorium Care of Tuberculosis.
2. Case Presentations.

* Transportation will leave main entrance of Eastern Maine General Hospital at 9.00 A. M. and return at 12.00 noon.

BANGOR STATE HOSPITAL**

Mental Disorders

9.30 A. M. to 11.30 A. M.

Clinics by Carl J. Hedin, M. D., and other members of the Medical Staff.

1. Use of Electric Shock Therapy in Manic-Depressive and Schizophrenic Psychoses and in the Psychoneuroses.
2. Use of Hydrotherapy in Manic-Depressive and Schizophrenic Psychoses.
3. Use of Occupational Therapy in the Various Types of Mental Disorders.
4. Ward Rounds, showing special cases.

** Transportation will leave main entrance of Eastern Maine General Hospital at 9.00 A. M. and return at 12.00 noon.

12.00 Noon Luncheon.

Eastern Maine General Hospital

Afternoon Session

EASTERN MAINE GENERAL HOSPITAL

2.00 P. M. to 5.00 P. M.

Case Presentations

(Ward D)

Chairman, MAGNUS F. RIDLON, M. D.

2.00 P. M. Staphylococcus Bacteremia.

Albert W. Fellows, M. D.
Allan Woodcock, M. D.

2.45 P. M. Peptic Ulcer.

Edward L. Herlihy, M. D.
Henry C. Knowlton, M. D.

3.30 P. M. "Polyserositis."

Harold E. Pressey, M. D.

4.15 P. M. Traumatic Injuries of the Chest.

Allan Woodcock, M. D.
Peter S. Skinner, M. D.
Samuel S. Silsby, M. D.

(Discussants:

Chester S. Keefer, M. D., and
Richard B. Cattell, M. D.)

(OVER)

Evening Session

6.30 P. M. Dinner.

Bangor House

Speakers :

Richard B. Cattell, M. D., Lahey Clinic, Boston, Mass.

Subject: "Surgery of the Intestines."


Chester S. Keefer, M. D., Evans Memorial Hospital, Boston, Mass.

Subject: "The Use of Antibiotics in Medicine."

Special Notice

Council

There will be a luncheon meeting of the Council of the Maine Medical Association on Monday, December 2nd, at 12.00 noon, at the Eastern Maine General Hospital.



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